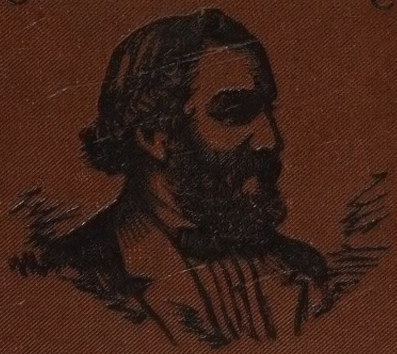
The Boat Builder Series

OLIVER OPTIC



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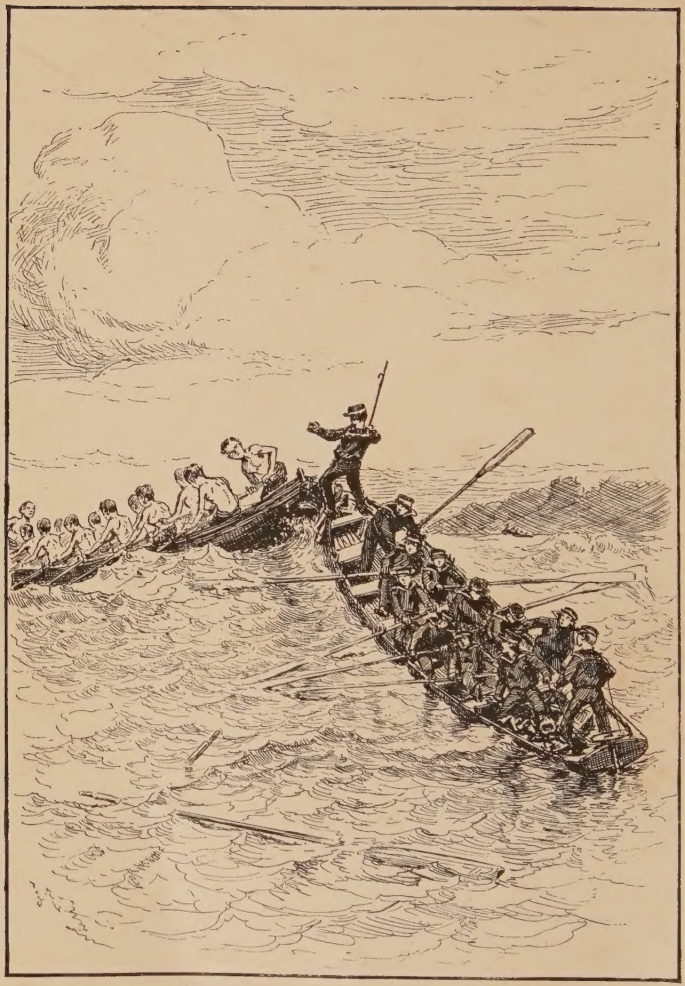

"The stem of the Winooski struck the bow of the Chesterfield barge."
—Page 68.

OLIVER OPTIC'S
BOAT-BUILDER
SERIES.
SQUARE AND COMPASSES.
BOSTON,
LEE AND SHEPARD
PUBLISHERS.

THE BOAT-BUILDER SERIES

SQUARE AND COMPASSES

OR

BUILDING THE HOUSE

BY

OLIVER OPTIC

AUTHOR OF "YOUNG AMERICA ABROAD," "THE GREAT WESTERN SERIES," "THE ARMY AND NAVY SERIES," "THE WOODVILLE SERIES," "THE STARRY FLAG SERIES," "THE BOAT-CLUB STORIES," "THE ONWARD AND UPWARD SERIES," "THE YACHT-CLUB SERIES," "THE LAKE-SHORE SERIES," "THE RIVERDALE SERIES," "ALL ADRIFT," "SNUG HARBOR," ETC., ETC.

With Illustrations

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SQUARE AND COMPASSES.

ELECTROTYPED BY
C. J. PETERS AND SON, BOSTON.

TO

MY YOUNG FRIEND,

ROBERT M. BAKER,

THIS BOOK

IS AFFECTIONATELY DEDICATED.

The Boat-Builder Series.

I.

ALL ADRIFT;
OR,
THE GOLDWING CLUB.

II.

SNUG HARBOR;
OR,
THE CHAMPLAIN MECHANICS.

III.

SQUARE AND COMPASSES;
OR,
BUILDING THE HOUSE.

IV.

STEM TO STERN;
OR,
BUILDING THE BOAT.

V.

ALL TAUT;
OR,
RIGGING THE BOAT.

VI.

READY ABOUT;
OR,
SAILING THE BOAT.

PREFACE.

"Square and Compasses" is the third volume of "The Boat-Builder Series." All the characters connected with the Beech Hill Industrial School who were presented in the preceding story will appear in the present issue. In addition to these, the students of another educational institution, on the other side of the lake, are introduced, as well as a gang of ruffianly young marauders residing in the vicinity of the Champlain mechanics.

These additions to the acting force of the story are made, not merely for the sake of the incidents and adventures to which their appearance gives rise, but for the contrast between well-behaved mechanics and ill-behaved gentlemen, and between boys well-trained and those not trained at all, as in the example of the Top-overs.

It is true that the writer regards a reasonable amount of exciting incident and adventure as necessary to hold the attention of his readers, but he has never been satisfied to present only these. While naked didactic pages covering the duties of young people are usually skipped or favored with only a hasty glance, the moral

quality of the actions and speech of a favorite character may produce a deep impression on the mind and heart of the reader. What the Good Samaritan or the Unjust Steward said and did, convey lessons which simple precepts may fail to impart. The moral of the writer's stories is in the words and actions of the characters, and the contrast between the lives of the good and those of the bad.

The author adheres to the rule he has followed for the lifetime of a generation: never to present bad characters in such a light as to win the admiration and sympathy of the reader; and he still believes in the old-fashioned practice of rewarding the good and punishing the evil in the story.

As in the last volume, it is a part of the writer's purpose to interest young people in the mechanic arts, and to illustrate the results of good discipline. He is a firm believer in Industrial Schools, whether public or private, and is satisfied that our country has reached a stage in its development when more attention than ever before must be given to practical agriculture and the mechanic arts. He sincerely hopes the present series will do something to promote the cultivation of a taste in this direction, as well as to afford moral instruction and innocent amusement.

DORCHESTER, MASS., Aug. 20, 1884.

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SQUARE AND COMPASSES;

OR,

BUILDING THE HOUSE.

CHAPTER I.

SOME INDICATIONS OF A REBELLION.

"WHAT 'S the use of wearing a uniform? We are not soldiers, and you are not going to make soldiers of us, Captain Gildrock," said Ben Ludlow, when the principal of the Beech Hill Industrial School announced, at the close of the afternoon session, that the students would be required to wear a peculiar dress. "I don't believe in being dressed up like a monkey on a hand organ."

"You can't always tell the monkey by the dress he wears, and some boys insist upon being monkeys in whatever garb they appear," added the principal; for he encouraged them to express their opinions in a gentlemanly manner on all subjects.

"Soldiers are not the only class that wear uniforms. They are worn in the navy as well as in the army. I think I have heard no objection from anyone to the sailor rig worn on board of the Sylph."

"I think it is all right when we are on board of the steamer; but who wants to go about Genverres dressed up so that everybody will stop on the sidewalk to look at him?" replied Ben, who spoke confidently, as though he thought he had a first-rate argument.

"As those who have opinions are expected to express them, I must say I think Ludlow is right?" interposed Mr. Brookbine, the master-carpenter. "I believe that, for plain republicans, we are getting altogether too much uniform into our daily life. Why, all the conductors on the steam and horse cars, all the telegraph boys, all the letter-carriers, all the policemen, and in some cities even all the gas men, have to wear uniforms."

"It seems to me very proper that all you have mentioned should wear uniforms," quietly returned the principal.

"I don't think so," answered the carpenter stoutly. "It looks a little too much like the fuss and feathers of monarchical countries for our

democratic institutions. I could n't help laughing when I saw one of the porters of the Bank of England dressed out like a lord high admiral, or Sir Peter Teazle in the play."

"Now you argue against the extravagance of uniforms, and not against uniforms themselves," retorted the principal. "I am in favor of uniforms, but not of ridiculous uniforms. Should you be willing to give your ticket or money to anyone on the train that chose to ask for it, Mr. Brookbine?"

"I don't think I should," laughed the master-carpenter, as he saw the point of the argument. "In fact I remember a case, before uniforms came into fashion, where a smart chap went through a car, and collected several dollars and a handful of tickets, and then left the train, before the conductor put in an appearance. I will give it up on conductors."

"Not many years ago a villain got into a house in one of our large cities, on the plea that he was a gas man; before he left it he had committed a murder. Then the newspapers said the employés of the gas company ought to wear uniforms, so that people could tell whom to admit to their houses. I believe it is now the fashion in that

city to wear them. A shrewd boy in Burlington collected a dollar and a half from a lady in the absence of her husband, by delivering her a bogus telegraph despatch."

"I never thought of the matter in this light before, captain," added Mr. Brookbine. "If uniforms are of any use, I don't object to them, certainly."

"But we are not telegraph boys, gas men, or conductors," Ben Ludlow objected.

"No, you are not; but the other day two of our students went into a saloon in Genverres, and each of them drank a glass of lager beer. I don't believe they would have done it if they had worn the uniform of the Beech Hill Industrial School."

This statement produced a decided sensation among the students, and they thought they understood the object which the uniform was expected to accomplish.

"I don't allow any boy to use intoxicating drinks while under my control. If I can't prevent it, I will expel the pupil; for I will not have his ruin on my conscience. I expect every student to have a proper regard for the credit and honor of this school, and conduct himself, wherever he may be,

in such a manner as to cast no discredit or dishonor upon it."

Captain Gildrock spoke with more feeling than usual, and his remarks made a deep impression upon the students. They promptly applauded what he had said, thus indicating that they would respect the good name of the institution. The principal did not check their demonstration on the present occasion, and he seemed to be pleased with it.

"The students of the Chesterfield Collegiate Institute, on the other side of the lake, don't wear any uniform," suggested Ben Ludlow, who realized that he had been thoroughly beaten in the argument. "Colonel Buckmill, the principal of the Institute, says that gentlemen, such as his pupils are, don't need uniforms."

"Of course Colonel Buckmill has a perfect right to his own opinion on this subject, as I have to mine," replied Captain Gildrock. "The Chesterfields will wear no uniform, but the Beech Hill students will wear a uniform. I think we need not argue the question any more. The uniform is ready, and you will put it on in the morning. It is merely a plain suit of blue, with our initials on the cap."

Some of the boys did not like the idea of a uniform. Something had been said about it before, and the topic had been discussed in the boats. A few thought it interfered with their independence. It would enable every person in the city to know them at sight.

If they got into mischief, or visited improper places, the uniform would betray them. The principal knew that two of them had drank beer in a saloon: he did not say what further information he had on this subject, and the students were not disposed to prolong the discussion in this direction.

Though they did not like to face the beer question, the boys were disposed to be a little sullen over the new order. They had not been in the school long enough to attain a very high state of discipline, and most of them had wills of their own. A large proportion of them had been in the habit of having their own way, and, to them, wearing a uniform was about the same thing as being placed under guard all the time.

"One thing more," interposed the principal, as the students were about to leave the shop. "As I announced on the day the school was opened, I intend to offer a prize for the best plan of a boat-

house, to be erected by the students on the border of Beech Hill Lake. I shall submit the offer the first thing to-morrow morning, after you have put on your uniforms."

The boys had been very much interested in the proposed new house; not so much on account of the accommodations it was to furnish them, as because they were to build the house themselves. Not a few of them had already considered plans for the structure, and the prizes would introduce a new element of excitement. But somehow the announcement fell rather coldly, and some of the pupils were more inclined to get up a rebellion against the new uniform than to compete for the prize.

Captain Gildrock left the shop, and went to the house. He could not help seeing that there was a spirit of disaffection among the students. They did not like the uniform, but the principal regarded it as a necessity, for he believed it would correct some tendencies to rowdyism he had observed among the boys, and especially that it would deter them from entering any disreputable places.

The boys went to the dressing-room, removed their overalls and jumpers, and attended to their

ablutions. Little knots of them conversed in low tones about the uniform; but a considerable number of them were sure to be loyal to the principal, and they were careful not to allow their remarks to be heard by such pupils.

The two twelve-oar barges, which had been provided by the principal and brought up to the lake two weeks before, had not yet become an old story. During the past fortnight the two crews had practised nearly every day with the oars, and had made excellent progress.

The two coxswains, Matt Randolph of the Gildrock, and Dory Dornwood of the Winooski, had a conference after every trip in the boats in order to determine what more was to be done for the improvement of the rowing. Captain Gildrock and Luke Bennington often made suggestions to them, but all instruction and discipline in the boats was left to the coxswains. The principal never gave an order except through the proper officer.

The instruction in swimming had been continued on every suitable day, and, as the boys were deeply interested in this amusement, they soon became very expert in the art. The timid ones obtained the necessary confidence, and the shallow waters of Beech Hill Lake were abandoned for

those of Champlain itself. The boating and swimming were now combined, and an excursion to Sandy Beach had been arranged for the day.

"Hurry up, fellows; we have n't any too much time, for it is a four-mile pull to Sandy Beach," said Matt Randolph, when he saw that the crew of his boat were thinking of something besides the excursion.

"I don't know that I care about going," replied Lew Shoreham, with a cross-grained look.

"Don't care about going?" exclaimed the coxswain of the Gildrock. "What has come over you fellows?"

"I don't like the idea of being dressed up like a monkey," answered Lew, apparently fanning his discontent.

"And all because a couple of fellows took a glass of beer each," added Bob Swanton.

"I should like to know how many fellows ever took any beer since they joined the school," continued Lew Shoreham. "I never drank any for one."

"I never tasted beer in my life," said Phil Gawner.

"I never tasted it but once in my life, and then it made me as sick as a horse," added Lick Milton.

Several others gave their testimony to the same effect, or declared that they had drank none since they joined the school.

"I see you are trying to get up a rebellion," said Matt Randolph. "I have drank lager beer a few times in New York, but not a drop since I came to this school. I don't object to the uniform, and I think the regulation requiring it is a very reasonable one. But I am not going to jaw about it now. All the Gildrocks to the boat."

"All the Winooskis to the boat," added Dory Dornwood.

About two thirds of the students followed the coxswains to the lake. It looked as though the other third intended to rebel at once, for they remained in the dressing-room after the others had gone.

CHAPTER II.

AN IMPROMPTU RACE BETWEEN THE BEECH HILL BARGES.

"HERE are eight of us, and not one of the eight has touched any beer since he joined the school," said Lew Shoreham, after the majority of the boys had gone, and he had got the bearings of the question under discussion.

"I am in favor of standing out, for one," added Tom Ridley. "I am willing to do my duty and obey all the rules, but I am not going to be rigged out like a state-prison bird when I have n't done anything out of the way."

"It looks like punishing the whole crowd for the sins of the two fellows who drank the beer," continued Harry Franklin.

"If the captain knows who the fellows are, why don't he put them into uniform, and not make black sheep of the whole of us?"

"I don't believe in doing anything in a hurry," interposed Bart Cornwall. "If we are going to

stand out, we want to know what we are about before we begin."

"That's my idea," added Bob Swanton. "Let us understand what we are going to do before we begin."

"Perhaps we had better talk it over among ourselves before we do anything," mused Lew Shoreham. "There is time enough before to-morrow morning."

"That's the idea," Life Windham chimed in. "The worst we can do is to refuse to wear the uniform; and we can't refuse before the clothes are given to us."

"By the way, did you fellows hear that the Chesterfield students have two barges like ours?" inquired Phil Gawner.

"I know they have, for I saw the kid-glovers out in them," replied Lick Milton.

"When did you see them, Lick?" asked Lew Shoreham.

"Day before yesterday. They were pulling in the barges near the shore."

"The rest of the fellows will go off without us if we don't hurry up," added Bart Cornwall. "Sandy Beach is not far from the Chesterfield Institute."

Phil Gawner bolted from the room in hot haste, and the other rebels followed him. The rebellion seemed to be forgotten, for there was already something like rivalry existing between the two educational institutions on the opposite sides of the lake. The Chesterfield young gentlemen, when they came within hailing distance of the boys of Beech Hill, had taken occasion to manifest their contempt by words, signs, and other demonstrations. They called the industrial school "The Tinkers' Institute," and this term was exceedingly offensive to our boys.

But the beautiful steam yacht in which the "Tinkers" voyaged on the lake, and especially the magnificent twelve-oar barges in which they sported upon the waves, excited the envy of the "Kid-Glovers." Colonel Buckmill suddenly found his prestige slipping away from him. He had a variety of boats for the use of his students, though none of them were sailing craft. He was no sailor himself, and he had a mortal dread of sailboats.

As soon as he realized the state of feeling among his students, he hastened to New York, where he succeeded in finding a couple of barges like those which had been built for the Beech Hill school. He had purchased them at a large price, and they

had arrived a few days before. Colonel Buckmill was a soldier and a gentleman, but he wished that Captain Gildrock had located his fanciful school, as he regarded it, a thousand miles from Lake Champlain.

"What's the matter now?" demanded Matt Randolph, when the rebels rushed out on the pier at which the two barges lay. "I thought you were going to deprive us of the pleasure of your company to-day."

"We have concluded to go with you, and keep you out of hot water," replied Lew.

"And keep yourselves out of hot water, which is more sensible," added the coxswain of the Gildrock, as he seated his crew in the boat.

"I thought you were not going for fear some one would see you and know that you belong to the B. H. I. S.," added Will Orwell, with a laugh.

"Up oars!" shouted Matt, when the crew of both boats were seated; and the order was repeated by Dory.

Ten oars in each boat went up to a perpendicular, with the flat side of the blades parallel with the thwarts. The coxswains looked them over to see that all were in proper position.

"Shove off!" continued the coxswains.

The bow oarsmen shoved off the head of each barge, and the stroke oarsmen used their boat-hooks until the boats were clear of the pier. Then the bowmen coiled up the painters, and the after oarsmen took care of the stern lines. When they had done this duty, they elevated their oars without any orders.

"Let fall!" said Matt and Dory, when the boats were clear of the pier. The crews had been so well trained that the twenty-four oars struck the water at the same instant; but the loom, or part near the handle, of the oars was not allowed to fall upon the rail, or into the rowlocks. They are put in proper position after they are dropped.

"Give way — together!" said Matt and Dory, when they had seen that each oarsman was ready for the pull.

All the rowers caught the stroke the first time trying, but it had taken a great deal of practice to enable them to do so. The boys pulled a very even, uniform, and steady stroke. All the oars were raised to the same height above the water, and sunk to the same depth beneath its surface.

The barges were not mere fancy craft, built for speed, and for nothing else. Considering their great size they were very light, but they were

strongly built. They were constructed after a beautiful model, yet at the same time they were good sea boats, able and safe. As the students were liable to be caught on the other side of the lake in rough weather, Captain Gildrock considered staunch boats as necessary on Lake Champlain as on the ocean. The short, choppy sea of the fresh-water lakes is more trying to any kind of a craft than the long waves of the Atlantic.

The two barges darted down the lake as though they had been shot from a gun. It was a cool day, with the wind fresh from the northwest, and the crews were in just the right condition to do their best at the oars. Since their recent defeat in the race, the first class had been working hard to improve in rowing, and Matt Randolph had succeeded in imparting his own enthusiasm to his crew. But nothing was said about another race, for the first class meant to be sure before they risked another trial. Dory Dornwood saw what the machinists — as they sometimes called the higher class — were about, and he did not go to sleep.

The boats passed through the narrow outlet into Beaver River, and the Winooski appeared to have lost a length in coming down from Beech Hill

Lake. Dory watched the Gildrock, and soon discovered that she was gaining on him. The other crew had been practising by themselves a good deal lately, and it was evident that Matt Randolph had made a decided improvement both in style and power in the work of his crew.

Dory said nothing, and did not attempt to increase the speed of his boat. At the mouth of the river the Gildrock was half a dozen lengths ahead of him, and her crew seemed to be exerting themselves to widen the distance between the two barges. The boys of the leading boat could see the other all the time, while the Winooskis could not, for no rower was allowed to look behind him.

"The Gildrock is half a mile ahead of us!" exclaimed Life Windham, the stroke oarsman of the Winooski; for the other boat had changed her course to the southward, and a side glance had enabled him to see her.

"Not so bad as that, Life," replied Dory, with a smile.

"Don't let them beat us, Dory," added Ned Bellows, on the next thwart.

"They have been getting ready to whip us," said Dick Short. "They have been at work by themselves for the last week."

"They have got about all the older and stouter fellows in the school, and we must expect that they will beat us sometimes," replied Dory philosophically. "But we have also been in training, and if they beat us they have got to work for it."

"But they are beating us!" exclaimed Life, as he got another glance at the Gildrock. "Matt Randolph has been putting in some extra New York touches, and it is all up with us."

"Not yet," answered Dory quietly. "We have been taking it easy, and they have been using their muscle. Wait a little."

By this time every boy in the Winooski was aware that the Gildrock was running away from them, and the fact vexed and annoyed them. If they were beaten, even in a "scrub race," Dory would lose a portion of his popularity. The coxswain watched the other boat, but he did nothing to increase the speed of the Winooski. Some of the boys in the boat began to grumble, though conversation was not allowed while rowing.

"No talking in the boat, if you please, fellows," the coxswain interposed, and the grumbling ceased.

Dory could see that the Gildrocks were straining themselves to run away from the Winooski.

The first class fellows were not so far off that he could not read the expression of their faces, and see the smiles of satisfaction with which they regarded their advantage. He permitted them to enjoy their victory, as they evidently regarded it, until they were at least twenty-five lengths ahead. Matt Randolph frequently looked behind him to note the position of his rival.

All at once the oars of the Gildrock ceased to move, but every blade was in proper position. Then came three rousing cheers from her crew, with a tiger at the end. This was certainly crowing over the victory. The Winooskis, except the coxswain, were vexed, and even angry. Some of them began to grumble again; but Dory laughed, and called for silence in the boat. The crew obeyed the order, for they had come to believe that Dory knew what he was about "every time."

His crew soon knew what he was about, for he straightened up his wiry little frame, and then began to sway it back and forward to regulate the stroke of the rowers. In a few minutes every muscle was strained up to its utmost tension. The Winooski began to fly through the water. There was quite a smart sea on the lake, which Dory took into account, and humored the boat as it met the waves.

The Gildrocks saw what Dory was doing, and Matt set his crew on the strain again. At the end of a quarter of an hour the Gildrock was less than a length ahead. The crew of the first class boat were in a terrible state of excitement. They could see the other boat, and the effect upon them was bad when the Winooski began to gain on them. The Gildrocks were demoralized.

In three minutes more the Winooski had passed the other barge.

"Stand by to toss!" said Dory quietly.

The complimentary salute was given, but the coxswain declined to call for three cheers.

CHAPTER III.

DORY DORNWOOD ARGUES THE QUESTION.

"HOW did we do it, Dory?" asked Life Windham, utterly astonished at the result of the impromptu race, as were all the other members of the crew.

"We did it by minding our own business," replied the coxswain, as much pleased as though he had won a rich prize.

"Can't we give them three cheers, Dory?" inquired Ben Ludlow.

"No cheers, fellows," replied Dory, shaking his head to emphasize his decision.

"But the Gildrocks cheered when they got ahead of us," suggested Ben Ludlow.

"No matter if they did; it was bad taste, and they crowed before they were out of the woods."

"But I don't understand how it was that we happened to beat them," persisted Life Windham. "As you said, they have most of the older and stouter fellows in their crew."

"They ought to beat us every time," added Ned Bellows.

"Age and strength alone won't make the best rowers," replied Dory sagely. "Some of the fellows in the other boat are rather heavy and clumsy, and, without boasting, I believe they have not got the knack of rowing well yet."

"Do you think we have got the knack, Dory?" asked Phil Gawner.

"I think we have got it better than the fellows in the other boat, though we have a good deal to learn yet. You have more spring, elasticity, than the other fellows. But, fellows, we beat them by discipline. You grumble because I don't want you to talk and look behind you; but you obeyed orders, and that's what did the business."

"The first class fellows didn't talk or look behind them," said Life.

"They had no occasion to look behind them, for they could see our boat without," replied the coxswain. "When they saw us gaining on them they were excited, and in a little while they got demoralized. You could n't see them, and you did your very best."

"Matt Randolph is making a speech at them," said Dick Short, laughing.

"He knows why he was beaten, and he is telling his crew about it," added Dory.

The coxswain of the Gildrock was certainly talking as though he "meant business," for his words and his gestures were very earnest. He and Dory had talked about the subject upon which Matt was at this moment eloquent. Both agreed that if all the oarsmen could be blindfolded they would do better in a race. It was the province of discipline to keep them unmindful of success or defeat.

"Stand by to lay on your oars!" called Dory suddenly, while his crew were still watching the gesticulations of Matt Randolph.

The crew of the Winooski, who had been pulling very leisurely for some minutes, gave attention to their officer at once.

"Oars!" added Dory: and, the moment he gave the word, the oars were levelled at right angles with the length of the boat, with the blades feathered.

All the crew looked at the coxswain, wondering what was coming, for they had taken a rest after the Gildrock was beaten, and were not in need of another. This was the usual position of the crew when the officer had anything to say, or any announcement to make.

"Now you may look behind you, if you wish," continued Dory, with a meaning smile.

Every rower believed there was something to be seen, or the permission would not have been given, and they all availed themselves of the opportunity.

"The kid-glovers afloat!" shouted Thad Glovering, in the bow.

"Gentility on the wave!" exclaimed Life Windham.

"The dudes in the spray!" added Jim Alburgh.

"The exquisites on a racket!" cried Nat Long.

"Dandies on the brine!" chuckled Ben Ludlow.

"Fresh-water brine," added Dory.

"They are pulling towards Sandy Beach," said Corny Minkfield.

All these sarcastic remarks were called forth by the appearance ahead of two barges, similar to those belonging to the Beech Hill school. They were very gaily painted, and, whatever their merits for speed and ability, they were quite as handsome as the Gildrock and Winooski.

"Twig the uniform!" exclaimed Ned Bellows.

"But that's only a boat uniform," replied Life Windham, who was one of the incipient rebels. "None of our fellows object to the uniform they wear on board of the Sylph."

The uniform of the Chesterfields — for there was no doubt as to the identity of the occupants of the barges — was blue flannel, trimmed with white. It was very fanciful, and rather a sensational costume.

"I suppose every one of them wears an eyeglass, and has a cane under his thwart," laughed Phil Gawner.

"And every one parts his hair in the middle, so as to keep the boats on an even keel," added Lick Milton.

"Anything more?" inquired Dory.

"I wonder if they row in kid gloves," said Ben Ludlow.

The boys seemed to have exhausted their terms applicable to the young gentlemen of the Collegiate Institute, and a silence followed. There could be no mistaking the sentiment of the crew of the Winooski. They were disposed to ridicule and lampoon the young gentlemen without mercy. Possibly there was some justification or palliation for the manifestation of this spirit, for the Chesterfields had applied offensive terms to them on several occasions.

"Now, fellows, I should like to have you hear me for a moment," said Dory, when the crew

appeared to have exhausted their supply of taunts.

"All right, Dory: propel," answered Phil Gawner.

"Those boats seem to be going to Sandy Beach; but that is no reason why we should not go there also."

"Of course it is n't!" exclaimed Ben Ludlow. "We have as much right at Sandy Beach as they have, and if they want to prevent us from going there, there will be music in the air."

"It is not at all likely that they will try to prevent us from going there," added Dory. "Those fellows claim to be gentlemen, and Colonel Buckmill claims it for them."

"The proof of the pudding is in eating the bag," said Ben Ludlow.

"This is a baked pudding, and there is n't any bag," returned Dory. "If those fellows are gentlemen they have made some slips, to put it in the softest way we can. They have yelled at us, and called us 'tinkers,' which is not a gentlemanly way to do things."

"That's it; and we will give them some of the same sauce," said Phil Gawner, with a threatening shake of the head.

"That's the very thing we will not do!" ex-

claimed Dory, with very heavy emphasis. "If the Chesterfields behave in an ungentlemanly manner, there is not the slightest reason why we should do so."

"Do you mean to let them call us names?" demanded Lick Milton, with a great show of indignation.

"I am not responsible for what they do: only for what I do myself," answered the coxswain, with dignity enough for the principal of a high school.

"But we are not going to shut our mouths and let them insult us," protested Ben Ludlow.

"What do you mean by insulting you, Ben?" asked Dory quietly.

"They call us members of the 'Tinkers' Institute;' and that is an insult to the school to which we belong. For one, I won't stand it!"

"What do you intend to do about it?"

"I mean to pay them back in their own coin."

"Call them dudes, kid-glovers, exquisites, dandies, milksops, and anything else we can think of," added Ned Bellows.

"Will calling them all these names wipe out the insult?" asked the dignified coxswain; but it should be said, to his credit, that he was dignified only when he was discussing great moral questions as the officer in command of the barge.

"We shall get even with them in that way," answered Ben Ludlow.

"If one of them should steal your watch, Ben, it would make him a thief — would it not?"

"No doubt of that."

"Then you would steal his watch, and thus get even with him, would you?" continued Dory, pressing his point with vigor.

"I don't say that I would," replied Ben.

"You would certainly get even with him in that way. I should like to have you answer the question, Ben."

"I should serve him right if I did steal his watch after he had taken mine," replied the cornered oarsman.

"That don't answer the question, and, after what you say, I must take it for granted that you would steal his watch."

"I did n't say I would."

"If you did steal his watch, would you, or would you not be a thief?"

Ben Ludlow did not like to answer this question, and he was silent.

"Of course he would be a thief!" exclaimed Life Windham; and half a dozen others took this view of the question.

"If the owner of the watch should prosecute you, would the judge decide that taking the watch was not stealing because the owner of it had stolen your watch before you did it?"

"Stealing is stealing, of course," answered Ben Ludlow.

"Then you would both be thieves," added Dory clinching his argument.

"There is no getting away from that conclusion," said Ned Bellows; and the rest of the crew indorsed his opinion.

"I suppose one who calls names is a blackguard. When the students of the Collegiate Institute call us 'tinkers' 'greasy mechanics' or any other offensive names, they are blackguards," continued Dory.

"No doubt of that, the blackguards!" exclaimed Dick Short.

"Good! We proceed to call them 'dudes,' 'kid-glovers,' 'exquisites' and such terms, and straightway we become blackguards also."

"I don't think stealing and hitting back are the same thing," growled Ben Ludlow, who felt that he was thoroughly beaten in the argument.

"But what makes a thief or a blackguard on one side of the lake makes a thief or a blackguard on the other side," added Dory.

"Now, fellows, you have just won a victory by holding your tongues and minding your own business. I want you to obey orders, and win another victory in the same way."

"All right, Dory; we will obey orders, for you get us through every time when we do," said Corny Minkfield.

"But I think we ought to give them some if they are saucy to us," persisted Ben Ludlow.

"We will give them some — some instruction in gentlemanly behavior if they need it," replied Dory. "Give way!"

Ben Ludlow raised no farther objection, and the boat went ahead again in the direction of Sandy Beach.

CHAPTER IV.

THE CHESTERFIELDS HANG OUT THEIR BANNERS.

"NOT a fellow will speak without orders," said Dory Dornwood, as the Winooski approached Sandy Beach.

The coxswain of the barge felt that a great responsibility rested upon him. He had no doubt the young gentlemen of the Chesterfield Collegiate Institute would indulge in epithets when they came within hail of the Beech Hill boat, for they never failed to do it whenever the opportunity was presented. Matt Randolph was still laying down the law to his crew, and the Gildrock was not within a mile of the little cove at the head of which was Sandy Beach.

If the crew of the Winooski retorted, as they were disposed to do, there would be a war of epithets, and the affair would not be likely to end without a fight. No one on board questioned the coxswain's pluck. Some of them called him a "conundrum," because they could not understand him.

Oscar Chester had the reputation of being the greatest fighting character in the school, though he had earned his name in other fields. Yet Dory had "knocked him out" in the twinkling of an eye. But the coxswain always did his best to avoid a quarrel of any sort, and never bullied or crowded anyone.

Now he would not allow his crew to retaliate upon the Chesterfields, whatever they said, or however abusive they became. The crew of the second class boat had never seen a fellow like him. But he had proved that he was able to take care of himself and of them, and they were disposed to follow his lead.

The three boats were approaching the cove, the course of the Winooski being at right angles with that of the Institute boats. They were now near enough to enable Dory to take the measure of the rival craft, and their crews. Under the lee of the west shore the water was quite smooth, so that the Chesterfields had no sea to contend against.

To the experienced eyes of the coxswain of the Winooski it was plain at a glance that the gentlemanly oarsmen had no skill in rowing, and had had no proper instruction in the art. A few days' practice enabled them to pull together; but this

was about all that could be said of their operations. As it was understood on board of the Beech Hill barges, there was no such thing as discipline in them. The crew were turning and twisting about on the thwarts, all of them engaged in noisy conversation.

The Chesterfields were staring with all their eyes at the Winooski, and their remarks evidently applied to her. They were out for a good time, and they seemed to be having it. Dory's crew had put themselves on their good behavior, and not one of them looked to the right or the left, much less behind him. They pulled a very easy stroke, and they all worked as though they were parts of the same machine. But those in the other boats did not seem to be at all impressed by the ease and grace of their movements.

The three boats came to the mouth of the cove at the same time. The attention of every student in the Chesterfield boats was directed towards the Winooski. They were giving more thought to the Beech Hill craft than to their own.

"Go it, Tinkers," yelled one of them, as the boats came within hailing distance.

"Put her through, Chip-splitters," shouted another.

"Let her drive, Cog-greasers," yelled a third.

"Shove her along, Shaving-makers," screamed a fourth; and all of them cried as though they meant to be heard.

The blood of the Beech Hillers boiled in their veins; but when they looked at the coxswain, and saw a smile upon his face, they repressed their indignation as well as they could, and tried to be as cool as Dory Dornwood. The two barges came nearer, and the offensive epithets were repeated, with many new ones added. Still Dory Dornwood smiled serenely in the consciousness that he and his companions had not yet become blackguards.

"Stand by to toss!" called the coxswain, while the disagreeable names were still showered upon them.

Tossing the oars is a complimentary naval salute; and Dory was determined to treat the young gentlemen of the Collegiate Institute politely, whether they deserved it or not. Probably the crew of the Winooski did not relish this idea of "turning the other cheek also," but they had promised to obey orders, and they meant to do it this time, if it killed them.

"Toss!" added Dory, at the proper time; and

the twelve oars went into the air as though the oarsmen were in love with the Chesterfields.

"The Greasers are showing off!" exclaimed some one in the leading barge.

"Set them up again!" cried another.

"Let fall!" said Dory, giving no heed to the shouts.

The oars dropped into the water all as one, and Dory added the order to give way.

"They don't understand the salute," said the coxswain, as the boys resumed their stroke with as much precision as though there had been nothing to divert their attention.

The steady pulling on board of the Winooski set her into the cove some distance ahead of the two barges, and by this time the crew could see the occupants of the other craft without breaking the rule. When they saw the awkward rowing of the Chesterfields, they could hardly repress their mirth, but they succeeded in confining it to smiles, in some cases exaggerated into broad grins, but not one of them uttered the shouts of derision that were at the ends of their tongues.

On the bow of the leading boat Dory saw the name Dasher, and a glance at the other showed that she was the Racer. As these names had

no doubt been selected by the gentlemanly students themselves, — for Colonel Buckmill would certainly have chosen classic appellations, — they conveyed some idea of the boating views of their crews. Racer was suggestive of trials of speed, and they would not have been boys if they had not desired and expected to beat something. Dasher was hardly less suggestive, and perhaps took in the additional idea of breaking something.

The Dashers and the Racers had given so much attention to the Winooski that they lost sight of their own beautiful craft; and they began to "catch crabs," punch each other with the handles of the oars, and allow things generally to fall out of joint, so that they were soon in a sweet snarl. The crew of the Winooski were on the very point of breaking out into a roar of derision, for the sight was too much for them.

"Steady, fellows," said Dory, in a mild tone. "Keep her just as she is."

The words restored the crew to their self-possession, and they straightened their faces with a hard struggle. The coxswain of the Dasher spoke a few sharp words to his crew, and restored order in his boat.

"I say, Greasers," shouted he, a moment later,

making a gesture as if beckoning to the Winooski.

Dory did not heed the call or the sign.

"Halloo! I say, you fellows from the Tinkers' Institute!" yelled Wash Barker, coxswain of the Dasher, as his name and style were afterwards found to be.

The crew of the Winooski still pulled their easy stroke, and Dory took no notice of the offensive hail.

"I say, you Chip-makers! Are you all deaf? Don't you hear me?" screamed Wash Barker in a still louder tone.

But Dory would not have heard him if his voice had been an earthquake while he mixed an epithet into his remark.

"Don't you want to race with us, Tinkers?" called Mad Twinker, the coxswain of the Racer, which had now come up abreast of the Dasher.

"Steady, fellows," said Dory in a low tone.

"I should like to try a race with those fellows," added Life Windham; and half a dozen others indorsed the wish.

"It would be no race at all; if we should give them a mile, we could beat them in going two," replied Dory.

"It will do them good to beat them," suggested Ned Bellows.

"While they call us names I shall have nothing to say or do with them," added the coxswain.

"I should like to get even with them in some way," said Ben Ludlow; for, "though beaten, he could argue still."

"I don't want to get even with them. We are a long way ahead of them in gentlemanly conduct, and we should have to fall back a long distance to be even with them," answered the coxswain.

This remark satisfied most of the crew, and was even comforting to Ben Ludlow. The Chesterfields continued to yell at the Winooski, exercising their inventing powers in inventing new terms of derision to apply to the Beech Hill students. Dory maintained his policy of silence to the end, and very likely the collegiate gentlemen thought they were treated with contempt.

The Winooski ran up to the beach at the head of the cove, and her crew landed. The Gildrock was not yet in sight, and it was apparent that Matt Randolph was taking his defeat very much to heart, and was training his crew. The second class boat was carefully secured, and in a few minutes more the crew were swimming at

some distance from the shore, for they had to go out at least ten rods to find water that was over their heads.

The boys were enthusiastic in this recreation, as they were in the boats, and they soon forgot the scenes in which the Chesterfields had taken part. They had received plenty of instruction in swimming, and what they needed now was abundant practice. But by this time there was not a single one of them who could not sustain himself and make fair progress in the deep water.

The Dasher and the Racer had also run to the beach, and their crews had landed. Dory supposed they were going into the water, and he hardly gave a thought to them. For a time they gathered in knots on the shore, and seemed to be busy talking together. Then they began to walk about, and extended their ramble to a considerable distance. They did not go into the water, and at the end of half an hour they embarked in their boats and pulled out of the cove.

But they did not go a great way. At the entrance to the cove, half a mile distant, they lay upon their oars. Thus far the Winooskis had been so busy with their sports in the water that they hardly heeded the Chesterfields. The young

gentlemen had departed, and the skirmishing for that day appeared to be at an end.

"What are those fellows about?" shouted Corny Minkfield, when the operations of the Chesterfields attracted his attention.

Every member of the Winooski's crew glanced in the direction from which the two barges had been last seen. The boats were at rest at the entrance of the cove; but their crews were not laying on their oars. Each one of them had raised something like a flag or a rag on his blade. They were all yelling like maniacs, and flaunting these banners in the air. The Winooskis swam to shallow water, and stood upon their feet. It was time to go out, and they went ashore.

The Chesterfields had stolen their clothes; and these garments were the banners they flaunted.

CHAPTER V.

JUST BEFORE THE BATTLE.

"THEY have stolen our clothes!" shouted Ben Ludlow, who was the first to discover the mischief that had been done.

"Shall we steal theirs if we can get hold of them?" asked Dory

"We can't get hold of them," replied Ben, who was not disposed to renew the former discussion.

"Perhaps we can; we know where they are, and all we have to do is to go and take them," added the coxswain, with a smile and a shrug of the shoulders.

"But the fellows have them on," Ben objected.

"That has nothing to do with the right and wrong of the question," continued Dory.

"I think we had better get back our own clothes before we talk of stealing theirs," said Ben. "I am cold now I have come out of the water, and I want my shirt and trousers."

"We are all in the same pickle," laughed Dory, as he glanced at the boats of the Chesterfields.

The collegiate gentlemen seemed to be afraid the Beech Hillers would not know what had become of their garments, and they were flaunting them in the air as a matter of information to their rivals. And they seemed to be enjoying the situation hugely, and the shouts of derision and the roars of laughter came across the waters thick enough to stir up all the bad blood in the veins of the Winooskis.

"We are in a pretty fix," exclaimed Phil Gawner, as he extended his arms as an athlete would exhibit his muscles.

The principal required every student to wear trunks when he bathed, and was very strict in enforcing the rule. When the second class came out of the water, they were certainly in uniform, though it was rather unique in style. It was a cool day, and cooler on the shore than it was in the water. Most of the boys began to shiver as they stood on the beach, and the situation was very uncomfortable as well as very annoying, so far as the proprieties of society were concerned.

"I shall freeze to death," said Lick Milton, his teeth chattering like those of a person with the ague.

"So shall I! And we shall all catch our death of cold," added Jim Alburgh.

"I have one cold now, and I shall have another on top of it," shivered Corny Minkfield.

"All the crew in the boat!" shouted Dory, with a vim that showed he was determined to do something.

"All aboard!" cried half a dozen others, as they tumbled into the barge.

Half the crew were required to shove her off before they took their places; but in a minute they were all afloat, wondering what the brisk coxswain intended to do.

"We can get warm if we can't do anything else," said Dory, as he took the tiller lines in his hands, "Up oars! Shove off! Let fall! Give way!" The last order was given when the boat had been shoved clear of the sands of the beach, and had come about so that it was headed out into the lake.

The unclothed rowers bent to their oars, and the Winooski began to spin through the water. The exercise was in the highest degree exhilarating under the circumstances. Dory had the worst of it for he had no oar to pull; but he swayed his body with more than usual vigor, and the wind of the crew was not likely to last a great while under the rapid movements required of them.

The coxswain shook up his frame and muscles all he could, and he soon ceased to shiver. A couple of minutes were enough to send a glow through the veins of the rowers, and they were soon as warm as though they had been clothed in their overcoats.

The Dasher and the Racer continued to flaunt their banners in the air, and to send their shouts of derision over the water, until the Winooski had reached her highest speed. Very likely Wash Barker and Mad Twinker had some idea of the rapidity with which the Beech Hill barge was approaching them. At any rate they hauled down their banners, and got their oars into the water.

In spite of their present semi-nude condition, the Winooskis were still under the influence of the usual discipline, and they did not attempt to look behind them, or otherwise to inquire into the movements of the Chesterfields. But the coxswain knew that the curiosity of a boy is almost as strong as his love of fun, and he was in the habit of giving his companions all the information that would interest them.

"The Chesterfields have taken down the clothes and are pulling with all their might to keep out of our reach," said he, when he was warm enough

to use his organs of speech without stammering.

"That is not saying much," replied Life Windham.

"We shall overhaul them in about three minutes," added Dory.

"What then, Dory?" asked Ben Ludlow, but his wind was so nearly gone that he could hardly speak.

"I don't know, that depends," answered the coxswain.

"If they don't choose to give us back our clothes, I don't see that we can do anything," said Life Windham.

"Perhaps we can, we will see."

But Dory was very anxious in regard to the situation, and he found it very difficult to decide what to do. True to his antecedents, he wished to avoid a quarrel, or even a dispute, with the members of the Collegiate Institute. If he went near them there was sure to be trouble; but it would be impossible to recover the clothes without approaching them.

There were only two courses open to him: one was to return to Beech Hill with his naked crew, and the other was to confront the Chesterfields;

and a meeting might result in their being obliged to go back to the other side of the lake in their present novel uniform. It would be humiliating to return in a state of nature, and to encounter the derision of the first class.

Was it necessary for him to submit to every indignity without resistance in order to avoid a quarrel? Must his crew submit to being robbed of their clothes rather than stand up for their rights? Must they abandon their property rather than make an effort to reclaim it,— rather than run the risk of a quarrel?

Dory decided these questions in the negative very promptly. His religion was stalwart enough to make him believe there was such a thing as carrying even meekness too far. If there proved to be a quarrel, he should go into it with clean hands, having done nothing to provoke it; and what was true of himself personally was true of every member of his crew. Not one of them had uttered a jeer or a taunt in the hearing of the assailants. They had minded their own business in the fullest sense of the phrase; and whatever happened they were not to blame.

The boys were warm and comfortable by this time, and the coxswain had greatly reduced the

rapidity of the stroke. The rowers had regained their breath, and were watching the anxious face of Dory with the most intense interest. There were twenty-six of the Chesterfields, which was double their own number, and to get their clothes by force did not look like a hopeful enterprise to any of them. But the Gildrocks were not far off, and their assistance could be had for the asking.

"Now, fellows, we must overhaul those boats," said Dory in his usual quiet tone, when he had decided not to return to Beech Hill in their present uniform.

"What are you going to do, Dory?" asked Ben Ludlow curiously; and the same question was on the lips of every member of the crew.

"I intend to do whatever it may be necessary to do. We are going after our clothes, and we must get them the best way we can," replied the coxswain.

"But suppose they won't give them to us?" suggested Life Windham.

"The clothes belong to us, and we have urgent need of them at just this time. If they won't give them to us, we must take them, if we can," answered Dory.

"But we can't," added Phil Gawner.

"We can't tell till we try."

"Don't you think we had better call on the Gildrocks, and get them to help us?" Ned Bellows asked.

"That's the idea!" exclaimed Lick Milton. "Then we shall have as many fellows as they have."

"Do you see anything of the Gildrock?" inquired Dory with a smile.

"I don't see her, but she can't be far off," answered Lick, as all the crew cast their eyes over the lake astern of them.

"I think she has gone into Rock Harbor," said Jim Alburgh. "The Gildrocks don't want to see us just yet, after the whipping they have had."

"If we go after the Gildrock it will be half an hour before we can get back here again. Those fellows will hide our clothes while we are gone, and I am not in favor of losing sight of them for a moment," added Dory.

"But what's the use of going ahead when we can't do anything if we come up with them?" said Ben Ludlow.

This question was discussed for the next few minutes; and it was plain that Ben Ludlow and

several others had "no stomach for the fight" which they believed would grow out of a meeting with the Chesterfields. If there was going to be a fight, they wanted to be equal in numbers to the enemy; and they felt that the older and heavier fellows of the other boat would make an even thing of it.

For this reason they were not in favor of following up the Chesterfields until they were reinforced by the Gildrocks. This was the view of several of the crew, but the majority, whatever their opinion, were entirely willing to leave the whole matter to the plucky but prudent coxswain. He had always brought them out of all difficulties, and they were more disposed to trust him than to depend upon themselves. They were vigorous in their support of Dory, declared that they would obey orders whatever broke, and hoped he would do what he thought best.

Those who were anxious to follow their own views were compelled to yield the point, and they ceased to offer any further resistance. Ben Ludlow and the others who had been so desirous of getting even with the Collegiates were not so earnest as they had been. They were ready to

"call names," and throw mud, but when it looked like a brush of another kind, their backs were not so stiff.

"Fellows, you have behaved first rate so far, and I hope you will do so to the end of this affair," said Dory, after all questions had been settled. "You kept still when I asked you to do so, and, whatever happens, we shall go in with clean hands. I don't know how we can settle this matter with those fellows, but I want you to be silent and let me do all the talking with them."

"All right, Dory: propel," replied Corny Minkfield; and the sentiment was promptly indorsed by all the others.

The coxswain began to increase the speed of the Winooski, which had already gained half the distance between the boats. In a few minutes she was within hail of the enemy.

CHAPTER VI.

THE COXSWAIN OF THE WINOOSKI INDULGES IN MORE STRATEGY.

THE Chesterfields were struggling with all their might at their oars. They appeared to have no idea of the speed of the Winooski, and evidently entertained the idea that they could run away from her when they exerted themselves to the utmost. But Wash Barker and Mad Twinker, the coxswains, had apparently learned one thing: and this was that their crews could not handle the boats so well in rough as in smooth water.

The cove where they had stolen the clothes of the Beech Hill boys was at the narrowest part of the lake, where it was not more than a mile wide. Even here they had kept under the lee of the shore, and had been in very little troubled water. Half a mile below the cove was Northwest Bay, where the lake is four miles wide. The Chesterfield Collegiate Institute was on the north shore of the bay, near the point where the lake begins to contract its width.

There was silence on board of the Winooski, though the young gentlemen in the two barges were yelling as much as they could while exerting themselves at the oars. The latter were in great glee, and seemed to be in the highest enjoyment of the situation. Dory studied the movements of the two boats, and soon satisfied himself that their coxswains were hugging the northwest shore, so as to avoid the heavy sea, which prevailed at even less than half a mile from land. Dory decided to block this game, and he headed the Winooski to the windward of the enemy.

Such a contest could hardly be called a race, for the vastly superior pulling of the crew of the Winooski allowed her crew to have it all their own way. Though the Chesterfields did not yet understand it so, the Beech Hill boat could easily pull around them.

"Good, fellows! You are pulling first rate," said Dory, when the boat had obtained the position in which the coxswain wished to place her. "We are abreast and exactly to windward of them now."

"What is coming next, Dory?" asked Life Windham; and all the crew had an interest in the question.

"I don't know: it all depends upon circumstances," replied Dory. "Now pull your regular easy stroke; and we can readily beat them with that. Things will come to a head very soon."

The crew took the easy and graceful stroke indicated, but this produced a greater speed than the Chesterfields could make with their utmost exertion. Dory changed the course of the Winooski as she went ahead of the Racer, so that she would gradually approach the enemy.

In a few minutes it was evident that the Beech Hill boat would be in the water of the other boats, and Wash Barker headed his craft farther to the southward. This was just what Dory wanted him to do. He diminished the speed of the Winooski still more, and continued to crowd into the water of the Dasher until the latter was headed to the south, or out into the rough sea.

Wash Barker, who appeared to act as the commodore of the squadron, — Mad Twinker, in the Racer following his lead, — could not help seeing the result of these manœuvres, whether he comprehended their purpose or not. The white-caps were before him, and he knew that his crew made bad work in the waves. Already the Dasher was begining to pitch, and the spray to

swash in over her stern. But it looked to him just then as though, if he headed for the shore, the sharp bow of the Winooski would cut his craft into two pieces.

Wash tried several times to get out of the scrape, but the Beech Hill boat looked like a streak of lightning to him, and he did not want it to come any nearer to him. He was soon compelled to give it up as a bad job: his pursuer would allow him to go only to the southward. But Wash had brains if he didn't know much about handling a boat. The force of the waves was increasing every length he went in the present direction.

Dory heard him shout to Mad Twinker, but he could not understand what he said. A moment later the Dasher began to head more to the eastward, the Racer taking the same course. The commodore had evidently decided to get about in the opposite direction. Dory followed him up closely till the two barges were in the trough of the sea, and began to roll instead of pitching as before. The rowers on the lee side, as the boats careened in that direction, had their looms thrown out of the rowlocks. Some of them went over backwards, and some of them, in their efforts to save themselves, lost their oars overboard.

In a word, the crews of both the Chesterfield barges were in a fearful snarl. The boats continued to roll in the heavy waves, and Dory thought it not unlikely that his crew would be called upon to save the collegiate gentlemen from being drowned. Of course it was nothing but clumsiness which had reduced them to this extremity.

The crew of the Winooski were in a position to see all that occurred to the unfortunate barges; for Dory, as soon as he saw what Wash had intended to do, had come about in the opposite way from that taken by the other barges. When his boat was headed into the wind, he called upon the crew to lay upon their oars.

"That 's a bad egg for them," said Life, chuckling at the misfortune of the enemy.

"There are three of their oars floating off into the lake," Phil Gawner added.

"Don't you think we had better go out and tow them in, Dory?" laughed Ned Bellows.

"Until they get overboard, we will continue to mind our own business; but if they need help we must do all we can for them," replied the coxswain. "While we are waiting we might as well run out and pick up their oars."

The orders were given to start again, and the Winooski dashed out into the heavy waves. Dory discovered two more oars which had been lost by the Racer. The two bowmen were directed to pick them up when they came to them, and the five were quickly secured. They were stowed away under the thwarts.

By this time the Chesterfield barges were in condition to make another effort to reach the shore, or to get into smooth water. Wash Barker was yelling at his crew, and striving to bring order out of confusion. Mad Twinker was doing the same in the Racer; though neither of them had any brilliant success. But at last they got the remnant of their oars into the water. Then it was found that the three oars had all been lost from the starboard side of the Dasher, and Wash proceeded to bring about an equilibrium in his propelling force.

When the Winooski had picked up the oars, Dory took her to a position between the barges and the shore. He did not regard the battle as ended; in fact it had hardly begun, though the coxswain considered his tactics a success thus far. After a great deal of loud talk on the part of the coxswains, and a great deal of "talking back" on

the part of the crews, the Chesterfields were in condition to resume their effort to reach the shore.

Just as soon as the Dasher began to move through the water, Wash found the sharp bow of the Winooski pointed towards his boat. He was afraid of it, and he allowed himself to be crowded off his course precisely as he had before. It took but a few minutes to put his boat into the trough of the sea again, and she began to roll in a manner very trying to the nerves of the inexperienced boatmen.

The Chesterfields held on to their oars this time, though they stopped rowing. But they did not stop rowing by order of the coxswain. In fact there was a mutiny in the Dasher. The crew ceased to pull of their own accord, and proceeded to pitch into the coxswain for getting them into a scrape a second time. But Wash was a gentleman of energy and decision, and in the matter of "jaw" he soon overcame his refractory crew, and got his boat headed to the shore again.

By this time he comprehended the tactics of the Beech Hill boat, and realized that Dory's purpose was to drive him into the rough water. He appeared to be in an angry frame of mind, and he cast savage glances at the Winooski. Dory continued

to ply his strategy of crowding the Racer off her course. But her coxswain had evidently decided not to be shoved off again, though it looked as though the Winooski would dash into her bow the next instant.

"Halloo, Tinkers!" shouted Wash; "If you don't keep out of my way I'll run into you."

Dory made no reply to this threat, though it was uttered in a very savage tone, as though the speaker meant all that he said. The Winooski continued on her course towards the Dasher, her naked crew pulling their steady stroke, but not one of them looking behind him to see when the crash was coming.

"Oars!" said the coxswain, in a low but very decided tone. "Hold water!"

At the first command the oarsmen poised their blades at right angles with the gunwale; at the second they dropped them into the water, holding them in this position with a firm grasp. The effect was to check the progress of the boat. But this did not stop the boat, as the coxswain desired to do.

"Stern all!" he added; and the crew began to pull backwards.

A couple of strokes were all that were necessary

to overcome the remaining headway of the barge, and she rested in the position Dory had chosen for her. Wash Barker was evidently very nervous, though he saw that the Winooski had come to a standstill. The stem of the latter was pointed at her at an angle of forty-five degrees, but she was not directly in the course of the Dasher. Wash thought he had space enough to pass to the eastward of her, and perhaps he concluded that his threat had been effective in stopping his rival.

"Clap on that head bunter, Thad!" called Dory to the bowman.

The article indicated was a kind of cushion covered with a network of small rope. It was used when the boat was in danger of striking her stem against any hard substance, as in boarding the steamer, or making a landing at a wharf. Thad Glovering put the bunter in position; and the call for it indicated to the crew that there was danger of a collision.

The bunter had no significance to Wash, who believed he had won a victory in bringing his opponent to a standstill. He kept his course, and fully expected to pass clear of the Winooski. Dory watched the Dasher with the utmost care,

and it was plain enough that he intended to do something.

"You are doing first rate, fellows," said the coxswain, with his gaze fixed upon the Dasher. "Now is the time to remember what you have promised, and I want you to keep up the discipline clear to the handle."

"We won't slip up the hundredth part of an inch, Dory," replied Phil Gawner. "Ptopel!"

"Ready! Give way!" called Dory, after a pause of a moment. "But only two or three strokes!"

The crew gave a few vigorous strokes in perfect time, and doubtless Wash wondered what was coming next.

"Oars!" said the coxswain, sharply "Hold water!"

The progress of the barge was checked when she was within ten feet of the Racer. Then Dory ordered his crew to give way again. The stem of the Winooski struck the bow of the Chesterfield barge.

CHAPTER VII.

AN UNSATISFACTORY CONFERENCE ON THE WAVES.

THERE was no crash when the Winooski struck the Dasher, and Dory had intended there should be none, or at least nothing more than a smart rap. His crew anticipated something more than followed the contact of the two boats.

"Hold on, you Tinkers!" yelled Wash Barker, rising in his seat in the stern-sheets of his boat. "You are running into us. You will smash our boat all to pieces!"

But the collision did not realize his fears, though his conduct caused his crew to cease rowing. The Dasher was a couple of lengths astern of the commodore's barge, and the instant the mighty official yelled they all stopped pulling and looked behind them. The Winooskis felt the jar of the stroke, but not one of them turned his head, as they might have been excused for doing.

"Give way, fellows!" called Dory, in an energetic command, to the astonishment of his own

crew, and to the dismay of the coxswain of the Dasher.

But the crew of the Winooski obeyed the order, as they had promised to do, whatever broke. The command was given at the instant the two boats came together. The headway of the Dasher was checked, and the force with which the Beech Hill boat advanced carried her head around.

"Oars!" "Hold water!" "Stern all!" were the next commands of the coxswain of the Winooski, after he had set the Dasher to whirling in the waves.

The Chesterfield boat turned half around, so that she faced to the southward again. As soon as the Winooski had drawn back from her opponent, the crew lay upon their oars, the coxswain waiting for the issue of his last piece of strategy. He was evidently ready to do the same thing again, and Wash Barker began to look discouraged. His crew had held on to their oars when the boat was in the trough of the sea, but they had pulled them out of the water, or were trailing them alongside. At any rate they were in confusion, and the commodore could not extricate them from the dilemma.

Dory was patient, and his crew were in the

highest state of enjoyment when they realized that the gentlemen from the collegiate institute were completely "euchred." After a great deal of loud talking, and talking back, — for every rower appeared to be a voluntary coxswain, the crew of the Dasher got their oars into position in the water. They were ready to pull again; but the commander of the fleet was in doubt and dismay. He was headed for the open lake. His boats were pitching at a lively rate in the waves.

He could not go ahead, for that led him into the dashing sea. He could not come about, for the Winooski was sure to give him another whirl, and might smash his craft the next time. His crew were jawing and gesticulating at him; one telling him to do this, and another to do that. Dory gave his crew permission to witness the scene; and they could not help realizing the benefit, not to say the blessing, of good discipline. The bow of the Winooski was not more than a length from the stern of the Dasher, and the bowman of the Racer had fastened his boathook to the bow of her consort. The dismay of Mad Twinker in the other boat seemed to be as deep as that of his fellow officer, and he had no counsel to give.

There was a multitude of counsellors in the Dasher. Several of them advised the coxswain to run into the Winooski, and about all that could be heard in the snarl wanted to smash her. Wash Barker had brains, and he seemed to be aware that he could do nothing of the sort, for the reason that the cool coxswain of the enemy would not let him.

"I say, Tinkers!" shouted Wash, who had evidently concluded what to do.

Dory was as dignified as George Washington when his title was ignored, and he refused to answer while he and his companions were called by an offensive name. Wash hailed several times in the same strain without getting a reply. His crew seemed to be tired of yelling at him, and there was a silence in the barge after the coxswain had called a dozen times to his opponent.

"Winooski, ahoy!" shouted some one in the boat, who had perhaps learned from some sea novel how to hail another craft.

"On board the Dasher!" replied Dory.

"Are you all deaf there?" demanded Wash Barker angrily, when he discovered that his opponent had the power of speech; "I have been yelling at you for half an hour."

"We don't answer to the name of Tinkers, Greasers, Chip-makers, or anything of that sort," returned the coxswain of the Winooski.

"Oh, you don't!" sneered Wash, when Dory had, with a couple of strokes of the oars, placed the stern of the barge within a few feet of that of the Racer.

"We do not. You have our clothes in your boat, and I will trouble you to return them to us," added Dory.

"Don't give them up!" yelled a fellow in the bow of the Dasher.

"No, no!" shouted half a dozen others; "don't give them up!"

This looked like war, and things had a stormy aspect ahead. But Dory decided to pay no attention to anyone but the officer of the boat.

"Hold on to the clothes!" shouted the students in the Racer, when they understood what was going on.

The commodore of the squadron was thus fully informed in regard to the state of feeling in both his boats. Whatever his own view, he seemed to be unable to stand up against his companions.

"Our clothes were taken from the shore while we were in the water, and, as we need them very

much, I will thank you to return them," continued Dory, repeating his request in what some of his crew considered a very "gingerly" tone.

"Don't give them up!" yelled a crowd from both boats.

"You can hear what our fellows say to your request," replied Wash in a more pliable manner than he had yet assumed.

"I speak to you as the coxswain in charge of the boat, and I am waiting for your reply," added Dory. "The clothes belong to us, and I think you can have no doubt that they ought to be returned to the owners."

"Why don't you talk up to him, Wash?" shouted a student in the bow of the Dasher.

"We can't all talk at once, and you fellows keep up such a jaw that I can't get in a word edgeways," retorted the coxswain of the Dasher petulantly, for he evidently felt the force of Dory's hint that he ought to speak for his crew. "If I am to be the coxswain of the boat, I don't want every fellow to interfere with me, and take the words out of my mouth."

"You have got us into scrapes enough for one day," replied a rebellious oarsman in the middle of the boat.

"You want to crawl out like a lame chicken!" exclaimed another.

"I was elected coxswain; but you won't obey orders, or even treat me decently," answered Wash. "I have had enough of it, and I resign my office, to take effect at the present moment."

"You might as well! You don't know anything more about a boat than the rest of us," added one of the crew.

"I have nothing more to say," answered Wash Barker, with some show of dignity, as he left his seat at the tiller lines, and took another place. "Every fellow wants to be coxswain except me, and you may do what you please now."

Dory began to feel a higher degree of respect for the coxswain of the Dasher, and so did the rest of the crew of the Winooski. The Beech Hill boys were greatly interested in the dissensions among their opponents, and they could not help contrasting their own splendid discipline with that of the Chesterfields.

"Will you oblige me with the name of the coxswain of the other boat?" asked Dory, addressing the retired officer of the Dasher.

"His name is Madison Twinker, but we all call him Mad," replied Wash Barker.

"What did you tell him for, Wash?" yelled one of the gentlemanly students of the Chesterfield Collegiate Institute.

"I know how to answer a civil question," replied the late coxswain, as he settled down in his seat, and turned his back to his crew.

Dory directed his crew to pull a few strokes, and thus enable him to secure a position within talking distance of the coxswain of the Racer.

Before he could speak to Mad Twinker, the members of his crew began to shout at him, telling him not to give up the clothes. The discipline in this boat was no better than in the other. Dory repeated his request to the remaining coxswain of the squadron.

"Don't give up the clothes!" yelled the crew.

"If you fellows are going to do the talking I have nothing to say, and I shall follow the example of Wash Barker," added Mad Twinker; and he plainly sympathized with his fellow coxswain who had resigned.

The Chesterfields did not like this answer, and they looked at one another with something like dismay on their faces.

"Go ahead, Mad! We won't say another word," said the stroke oarsman. The others

made no promises, but for the time they were silent.

"I am waiting for your answer, Mr. Twinker," said Dory, when he thought it was time for the officer of the Racer to speak.

"Suppose I decline to return them," replied Mad, who found it necessary to say something, though it was clear that he had not decided what to say. "What then?"

"I don't care to consider any question but the return of the clothes," replied Dory.

"Our fellows are not ready to return your clothes, after the insults you have heaped upon us," answered Mad Twinker; and this answer was followed by a clapping of hands.

"Am I to understand that you refuse to return our property?" asked Dory gently but forcibly.

"We will compromise the matter if you like," suggested Mad Twinker, who did not like the cool manner of the coxswain of the Winooski. "If you will apologize for the insults heaped upon us, we will return the garments in as good condition as when they were taken."

"I am not aware that we have insulted you in a single instance, to say nothing of heaping insults upon you," replied Dory.

"We spoke to you twenty times, and you refused to answer us, or take the slightest notice of us," answered Mad, with energy, as though he believed he had made a valid charge; and he even got up a little indignation to go with it. "We invited you to race with us, and you would not deign to make any reply. We think we are entitled to a civil answer when we ask a question."

"Certainly you are when you ask a civil question; but every time you spoke to us you addressed us as 'Tinkers,' 'Greasers,' 'Chip-makers,' or some such insulting epithet. When we were insulted we simply maintained silence," answered Dory.

"Are you not Tinkers, Chip-makers, and Machine-greasers?" demanded Mad Twinker.

"Whatever we are, these names were applied to us as terms of reproach, and were insulting."

"We don't see it."

The Chesterfields clapped their hands again, as they had when the coxswain proposed the compromise. Just then the Gildrock was discovered pulling rapidly towards the scene.

CHAPTER VIII.

THE CHESTERFIELDS SURRENDER THEIR BANNERS.

COMMODORE MAD TWINKER did not seem to have much confidence in the position he had taken. He felt that he had been beaten in the argument, but in the face of his crew he could not abandon the ground he had taken. Of course he knew that the Chesterfields had no right to retain the garments they had brought from the shore; but it seemed to be quite impossible to "give in" to the Beech Hill party, and acknowledge that it was wrong to apply epithets to them.

"The Gildrock is coming, Dory," said Life Windham, in a low tone, for the coxswain had not observed the approach of his consort.

Dory cast a glance in the direction from which the other barge was coming. She had apparently just made her way out of Sandy Beach Cove, and the crew were pulling a quick stroke, as though they thought something was the matter with the Winooski. The plucky coxswain was not par-

ticularly pleased at the prospect of a re-enforcement; for, though Matt Randolph was a splendid fellow, he feared that he might be more inclined to fight than to compromise.

But if Dory intended to recover the clothing of his crew, the present situation looked more like a fight than a compromise. The Chesterfields refused to admit that the reproachful epithets were insulting, and demanded an apology for his neglect to answer the challenge to race with them. The coxswain, fearful that he might appear to be too stiff, went over the matter again.

"When we came near you we gave you a complimentary salute," added Dory.

"A complimentary salute!" exclaimed Mad Twinker. "When was that, and what was it?"

"We tossed oars."

"Tossed oars? Where did you toss them?" asked the commodore; and it was plain enough now that the Chesterfields did not understand the manœuvre.

"We raised them to a perpendicular; and this is the highest honor one boat can pay to another. We should not have tossed oars to you if we had intended to insult you," replied Dory with spirit.

"Do you call that showing off a complimentary salute?" demanded Mad, with a sneer. "It's no use to talk any more about it: when you make the apology for insulting us we will give up the clothes."

The crews of both the Chesterfield boats applauded. The wind appeared to be freshening, or it had driven the boats farther out into the lake, where they felt it more. At any rate Mad's last remark indicated a desire to end the conference on the waves.

"I hope there will be no trouble," said Dory, as he glanced at the Gildrock again, though she was still a mile from the scene.

"There will be no talk at any rate," replied Mad. "We are going ashore now, and we will see you on the land if you like."

"You will not go ashore until you have given up those clothes," added Dory firmly.

"I'm not going to fool with you, as Wash did, and if you don't get out of our way we will sink you!" exclaimed the new commodore.

"I think you will have to understand a little more about handling a boat than you do now, before you can do that," replied Dory quietly, as he backed the Winooski a little way from the Racer.

With some difficulty Mad got his boat about so that it was headed to the shore, and the Dasher, with Jeff Monroe acting as coxswain, was trying to follow her example. The waves were very rude, and it looked as though the latter would be swamped before she got about. As soon as Dory saw that the Dasher had accomplished the feat, he repeated his former manœuvre, shoving the bow of the barge entirely around, in spite of all the efforts of her crew to prevent it.

Mad Twinker ordered his oarsmen to beat off the assailants with their oars; but the moment the boat got into the trough of the sea, the bow oarsmen were utterly unable to stand up. In swinging around, the Winooski brought up against the side of the Racer, and two of the latter's oars were snapped in twain in the collision. But Dory drew back before any further damage was done, though the Chesterfield boat had only seven oars left.

By this time the Racer had nearly come about, and Dory gave her a shove which sent her back to her former position in the trough of the sea. Mad Twinker was downright mad in fact, as well as in name, when he found himself beaten. But the Winooski kept out of his reach, and he was utterly powerless. Her coxswain did not have

the least difficulty in swinging her around as he wished, in the smart sea.

The wind was blowing the boats farther out into the lake every moment, and the white-caps had a terrific aspect to the inexperienced boatmen. Mad brought his barge about again. Placing one of his oarless crew at the tiller lines, he crawled forward himself, and took a position in the bow. Arming himself with the boathook he directed his rowers to give way.

This time Dory did not wait till the Racer was headed to the shore, but darted upon her just as she came out of the trough of the sea. He called to Thad Glovering to boat his oar, and look out for his head, for Mad evidently intended to hit anyone who came within reach of his weapon.

"Oars!" shouted Dory with energy. "Stern all!"

But in spite of his care he struck the Racer harder than he intended, and a lively snapping of cedar boards was heard. The sound created a panic among the crew; they all stopped rowing, and looked behind them to see what had happened. About three feet of the bow of the boat was stove in, and the water was pouring in through the break.

"There! Do you see what you have done?" yelled Mad Twinker, appalled at the disaster to the Dasher.

"Will you give up those clothes, or will you take another rap?" called Dory sharply.

"Another rap! Do you mean to drown us all?" cried Mad.

"I mean to have our clothes!" answered Dory.

"Let them have the clothes!" yelled one of the terrified crew.

"Let them have them! We can't do anything more," added another.

Mad said nothing more, but he picked up such of the clothes as were within his reach, and held them out in the direction of the Winooski. His crew followed his example, and Dory ran the barge near enough to receive them.

"That 's all there are in this boat," said Mad Twinker.

"If you all move a little farther aft, the water won't run into your boat," said Dory in a quiet tone. "Here are five oars that belong to your boats. I have no further business with you to-day, unless we find some of our clothes are missing; and we wish you good evening."

"We shall have further business with you, and

you won't see the end of this affair for one while," growled Mad Twinker, as he crawled to the stern-sheets of his barge.

While this scene was transpiring, the Dasher had succeeded in getting about, and her crew were pulling for the shore, though they lay upon their oars when they saw the catastrophe to her consort. Dory followed the other barge without any delay, and was soon in position to "ram" the bow, as he had that of the Racer; but the Dashers decided not to be wrecked, as their consort had been. Jeff Monroe shouted that they would give up the clothes and they were delivered. The Winooski went to the shore, and the crew clothed themselves. None of the clothes were missing, and the coxswain was glad he had no further demand to make upon the Chesterfields. Before the boys were half clothed the Gildrock joined them.

"What in the world have you fellows been about?" asked Matt Randolph. "We thought you were in a row out there with the Chesterfields, and we were hurrying up to help you out."

"We were in a row, and we have smashed in the bow of one of their boats," replied Dory. "Our fellows have behaved first-rate, and I think we have come out of the scrape with clean hands."

"Not if you have smashed one of their boats," added Matt seriously.

"Captain Gildrock must settle that question; and I suppose Colonel Buckmill will have something to say about it," answered Dory, as he proceeded to relate in detail what had happened at Sandy Beach.

The event was discussed with no little excitement for a considerable time. Beech Hill was very indignant at the conduct of the Chesterfields, and heartily delighted that they had been beaten in the end. But all felt, as Mad Twinker had suggested, that they had not seen the end of the affair yet, and it was voted that a state of war existed between the two institutions on opposite sides of the lake; and perhaps it was a happy circumstance that four miles of fresh water lay between them.

"I say, Dory, I don't quite understand how it was that you beat us so awfully in that little scrub race we had," said the coxswain of the Gildrock. "I was sure we could whip you every time when we came out of the river."

"I knew that you had been giving your crew a little private training," replied Dory, laughing, as they walked down to the barges. "I know just

why you were beaten; and I think you had better wait till you get out of the woods before you do any crowing next time. The three cheers you gave were rather cutting to our fellows."

"I was confident we could pass you every time; and your crew were taking it very easy. We gave the cheers to stir you up, and give us a chance to beat you when you were doing your best," Matt explained. "But how did you give us such an awful waxing?"

"Simply by minding our own business: that 's all I know about it. Our fellows row first-rate, and they are in splendid discipline. Your crew got demoralized when they saw us gaining on them, and they could n't do anything more. It was as easy to beat them then as it is to go to sleep when you can't keep awake."

Matt did not understand the cause of his defeat much better than before. He said he had been training his crew, and trying to find out what the matter was.

The barges returned to Beech Hill, and after they were secured, there was nothing talked about but the encounter with the Chesterfields. As in duty bound, Dory reported the affair, with full details, to the principal.

"I am afraid this is rather serious business, Dory?" said Captain Gildrock. "It looks like a standing quarrel between our school and the Institute, and it may lead to disagreeable consequences. Of course the students on the other side will have their own story to tell, and probably I shall hear from Colonel Bucknill, who will claim damages for the injury done the barge."

"We had to recover our clothes, or come home without our shirts," pleaded Dory.

"I have no doubt you have told the story correctly as you understand it, but almost always there are two sides to any story. You appear to have acted with prudence and forbearance, and I have no fault to find with you," added Captain Gildrock. "We will wait and see what comes of the affair."

It may as well be said here that nothing came of it, and Colonel Bucknill was not informed in regard to the collision. The Racer was rowed to Westport that evening, and the next morning she had been repaired, and was in as good condition as ever. But the Chesterfields nursed their wrath, and vowed vengeance for the humiliation to which they had been subjected.

CHAPTER IX.

A REBELLION IN THE SCHOOLROOM.

AFTER breakfast on the following morning the students were provided with the new uniform, if so simple a suit could be dignified by such a title. It consisted of a sack, pants, and vest of blue flannel, and a cap on which was a monogram of the letters B. H. I. S. The buttons on the coat and cap were plain and nickel-plated, as was the monogram. It was a very neat dress, and most of the boys were pleased with it.

"Where is your uniform, Life?" asked Dory of the stroke oarsman of the Winooski, as they were about to enter the school and shop building.

"I don't intend to wear any uniform," replied Life Windham. "I am not a monkey, a soldier, or a policeman."

"As the rest of us are neither soldiers nor policemen, I suppose you regard us as monkeys," added Dory, laughing.

"I don't say that you are monkeys, only that you are dressed like monkeys," replied Life.

"I think you are making a mistake, and I hope you will consider well what you are about," continued Dory seriously. "My uncle pays for the clothes of all the students, and it seems to me he ought to be allowed to say what the garments should be."

"If Captain Gildrock wanted you to go about town with a chapeau on your head, should you be willing to do it?" demanded Life, with considerable vim in his tones.

"But he don't ask you to wear a chapeau, or even a soldier's cap. You argue against something that is ridiculous, instead of the actual thing," returned Dory warmly. "It is a common cap, just such a one as you wore when you came to Beech Hill, only there are four letters on it."

"It is a uniform, any way, and we are all to be punished because two fellows drank beer in a saloon," persisted Life.

"There is no punishment about it."

"Did n't Captain Gildrock say we were to wear a uniform because two of the fellows drank beer?" demanded Life.

"No, he did not!" protested Dory. "He said he did not believe the fellows would have drank the beer if they had worn the uniform of the school."

"Why not? Because they would be afraid of being found out?" sneered Life.

"Not at all. Didn't he say that he expected the fellows to have a proper regard for the honor and credit of the school? He thinks that respect for the institution would prevent the fellows from doing anything out of the way. The uniform would keep the fact that they are members constantly in their minds. In Boston all the pupils of the high schools wear a uniform cap."

"I don't see it in that light, and I look upon wearing a uniform as a punishment, served out to the innocent as well as the guilty."

"If I were you I should go and put the uniform on, and then carry my grievance to the principal," added Dory, sorry that the stroke oarsman of the boat should get himself into trouble for nothing at all.

"We argued the matter yesterday. I am not the only fellow who won't wear the uniform. There are eight of us, and we had a meeting this morning," replied Life, "and not one of them will put on monkey rigging."

"You are making a bad mistake, Life. Not a word was said yesterday about punishment, and I am sure my uncle will set matters right if you

only obey orders. If you stand out, he won't say a word to comfort you. Put on the uniform, go to him this morning, and say that you object to wearing it, for you look upon it as a punishment, served out to the innocent as well as the guilty," reasoned Dory.

"We said all we had to say yesterday," replied Life; and he joined several others not in uniform as they went into the building.

In the schoolroom Dory had a chance to see who the rebels were, for all the others wore the uniform, while the objectors had on the garments in which they had come to the school. There were four from the first class, and four from the second. Besides Life Windham, of his own crew, he found Phil Gawner, Lick Milton, and Tom Ridley. He was sorry he had not known who the rebels were before, for he thought he could have influenced them in the right direction. Ben Ludlow, who had had the most to say against the uniform the day before, wore the prescribed costume.

Eight out of twenty-six were nearly one third of the whole school. He wished he could have a chance to talk the subject over with the other rebels in his crew before they were called to order

in the schoolroom, for Captain Gildrock was a thorough disciplinarian. He would yield a great deal to respectful remonstrance, but not a hair to rebellion. If the eight rebels took a decided stand, the principal would regard it as a case of disobedience, and treat it accordingly.

But there was no time to argue the matter, and hardly a word had been said about it among the crews of the barges. The rebels had preferred to confine their discussion to their own number, instead of getting the views and feelings of the other members of the school.

Every pupil had a single desk in the schoolroom, which contained his books and other property. Each one took his place, and the roll was called by Miss Fatima Millweed, who was the clerk of the institution. All answered to their names. Most of those who wore the uniform did not seem to know that there was a rebellion in progress, and they looked with some astonishment at their companions in plain clothes.

The principal had not yet come in, and as he had announced other business for the opening of the session, the instructors waited for him. But the captain was a methodical and punctual man, and the roll-call was hardly finished before he

made his appearance upon the platform. He had a roll of papers in his hand, and seemed to be thinking of the business of the moment. He proceeded to unroll his papers, without bestowing any attention upon the new uniform, for he had noticed and commented upon it before school time.

"Now, boys, I have something to say about the plans for the new boat-house and hall for recreation," the principal began, as he took his place at the desk on the platform. "The idea does not include merely the building, but a wharf for the Sylph, docks for the barges, and the location and general arrangement of the building and grounds. For the best plan of the building the prize will be fifty dollars. The same amount will be given for the best location and method of constructing the wharf and arranging the grounds of the new structure."

"Architecture and civil engineering," suggested Bolingbroke Millweed, deeply interested in the business of the occasion.

"Precisely so, only we shall not meddle much with ornamental architecture," replied Captain Gildrock, looking over the pupils to observe the impression the announcement of the prize made upon them.

Then he suddenly suspended his remarks, and

stepped out to the side of the desk. For a moment he looked the boys over, as though his thoughts had taken a new turn. He left his papers on the desk, as though he had abandoned the subject of the building.

"I think I directed that the new uniform should be put on this morning," said the principal, after a considerable pause. "I see that most of you wear it, and I suppose the others could not find suits that would fit them. Mr. Sheers was to be here to assist in fitting you. Wasn't he here, Shoreham?"

"Yes, sir; he was here, and he selected a uniform that he said would fit me," replied Lew.

"But you have not put it on?"

"No, sir."

"I see there are several others who have not put on the uniform," continued the principal; and he proceeded to call the names of those in plain clothes. "If any one of you did not find a uniform that would fit him, he will signify it."

No one raised a hand or spoke a word, and it was evident that there was no trouble at all about fitting the garments.

"Shoreham, why have you not put on your uniform?" demanded the principal, rather sternly.

"I have decided not to wear a uniform," replied Lew, in an entirely respectful tone.

"You have decided not to wear a uniform," repeated Captain Gildrock. "Cornwall, I see that you are in plain clothes."

"I have also decided not to wear a uniform," answered Bart.

"There appears to be several of you who made the same decision," added Captain Gildrock.

"Eight of us, sir," said Bob Swanton.

"I wish to say, Captain Gildrock, that we do so with entire respect to you, sir," added Lew Shoreham.

"With entire respect to me, you intend to disobey my orders," said the principal, with a smile.

"We have agreed that not a disrespectful word shall be spoken to you, sir," continued Lew, who had apparently been appointed the spokesman for the rebellion.

"In other words, you intend to do wrong in a gentlemanly way, which is perhaps better than doing it in an ungentlemanly way," added the principal.

"I desire to give the reasons why we decline to wear a uniform," said Lew Shoreham, rising from his chair as though he intended to make a speech

of some length; and perhaps he could do it better than any other student in the school.

"I decline to hear the reasons — I respectfully decline. After I have given an order I don't argue the matter," replied Captain Gildrock.

"But we wish — "

"While you stand in the attitude of disobedience, you must excuse me from listening to what you wish, Shoreham. Those who have decided not to wear the uniform of the Beech Hill Industrial School may stand."

The eight rebels rose from their seats, and stood by the side of their desks. They held their heads up as though they meant to be manly and independent, and no doubt they felt so.

"I don't think you are quite fair, Captain Gildrock, not to hear what — "

"You are entitled to your own opinion. The eight boys who have decided not to wear the uniform will go to their rooms, and each remain in his own apartment until further orders," continued Captain Gildrock, in a very mild but decidedly firm tone.

"I wish to say — " Lew Shoreham began.

"You will say nothing!" interposed the principal, in a very stern voice. "Go to your rooms,

and stay in them till you have permission to leave them."

Lew Shoreham was extremely anxious to argue the question, and to do so before the school. Physically he was rather clumsy, and was not likely to distinguish himself in athletic sports; but he was a good speaker for a boy, and a bit of a lawyer besides. Doubtless he and his companions thought they were grossly abused in not being allowed to argue the question of obedience. The rebels retired from the schoolroom, and the principal picked up his papers.

CHAPTER X.

IMPORTANT TO BOY ARCHITECTS AND ENGINEERS.

THE principal said a few words to Mr. Darlingby, one of the instructors, as soon as all the rebels had left the schoolroom. The teacher followed the eight boys who had decided not to wear a uniform to the dormitory. He said nothing, but merely saw that the rebels went to their rooms, as they had been directed. He then called Bates, the old sailor who had been quartermaster and mate under Captain Gildrock for many years, who did any kind of duty at Beech Hill required of him, from running the steamer down to blacking the principal's boots.

The old seaman always obeyed orders, and never asked any questions or made any speeches. Mr. Darlingby stationed him in the hall of the dormitory, and directed him not allow any of the eight boys to leave the building, or more than one of them to come out of his room at a time. Bates knew what discipline was, for he had been thor-

oughly trained by his employer. The instructor returned to the schoolroom, and reported the orders executed.

After the rebels had departed from the room, Captain Gildrock made no allusion whatever to them. He pointed no moral for the benefit of the rest of the students, and did not seem to be in the least degree disturbed by the event of the morning. He picked up his papers, and went on with his announcements as though nothing had occurred to interrupt them.

"You have had valuable instruction in drawing from Mr. Jepson," continued Captain Gildrock; "but you have not yet had a great deal of practice. Of course I don't expect finished drawings from you, and the nicety of the work will not affect the result. All the plans must be drawn by scale, and must be intelligible, but the prizes are to be given for the ideas, and not for the artistic finish of the plans."

"On what scale must the plans be drawn?" asked Luke Bennington.

"Mr. Jepson must answer that question."

"A quarter of an inch to the foot," added Mr. Jepson, the master machinst and instructor in drawing.

"Do you all understand what rooms and closets we want in the boat-house? That is what the new building will be called," continued the principal. "I think you had better make a list of these things, so that you won't forget anything."

"Are the sailboats to be provided for in the building?" asked George Duane.

"Certainly not; it would take too high a building to cover the topmast of the Goldwing," replied the principal. "The safest place for the sailboats is at their moorings in the lake."

"I don't quite understand how the two barges are to be accommodated under cover," suggested Harry Franklin.

"There must be two slips, or docks for them, at least fifty-four feet long by eight or nine feet wide, with doors at the water end of them, so that the boats can be locked in. I shall say no more about the docks; but you can put them down at the head of your list. Then we want about forty dressing-rooms, for we must provide for the future as well as the present. They must be at least three feet square and light enough to enable the occupant to see what he is about."

"But where are these dressing-rooms to be located?" inquired Dave Winslow.

"You must answer that question for yourselves; and of course the value of the plan will depend upon the convenience and fitness of the apartments. Add dressing-rooms to the list. Then we want as many as four store-rooms, one for a sail-room, one for a paint-shop, and two for boat furniture."

"What must be the size of these rooms?" asked John Brattle.

"You know what these rooms are for, and you may determine the size of them for yourselves," replied Captain Gildrock. "I desire to measure each student's judgment in the decision of just such questions as this, and I shall leave a great many of them open for this purpose."

The boys looked at each other, and thought that whoever got the prizes would earn them, for it would take no end of hard thinking to make the plans.

"The next requirement is the hall for meetings, which will be on the second story," continued the principal, as the students added the apartment to their list. "The size and proportions will be left to your own judgment, but I will add that you may want to use this hall in the winter for exhibitions of declamation, dialogues, and concerts,

to which the people of Genverres may be invited. I give you the uses to which the hall may be put, and it is for you to determine how large it should be."

"Are we to make it big enough to accommodate the whole town?" inquired Corny Minkfield.

"You must judge for yourself how many people the hall ought to hold; for I have no clearer idea of the matter than you have, and I have no plan for the winter entertainments," answered Captain Gildrock. "If there are any exhibitions at all, they will be given at your request, and not at my desire."

"Are we to decide now whether we will have exhibitions or not?" Steve Baxter wanted to know.

"You are to decide for yourselves whether or not a large hall is likely to be needed. I have nothing more to say on this subject. I have now given you the essential points in the new building. In the matter of halls, corridors, entrances, I shall say nothing. You need not confine yourselves to the essentials I have mentioned. If you can add any apartments that are worth having, you are at liberty to do so, and the value of any such additions or improvements will be carried to your

credit on the total fitness of the plan. I hold the comfort and recreation of the pupils of the school to be entitled to consideration as well as usefulness in the narrower sense. I have said all I have to say in regard to the boat-house, and after this I shall answer no questions."

"Are the dressing-rooms to be on the lower story or the upper?" inquired Matt Randolph.

"They will be just where you choose to put them," answered the principal. "That is a question of convenience which each must decide for himself."

"But we have the two docks for the boats, the forty dressing-rooms, the four store-rooms, and the corridors and entries to put on the lower story, with nothing but the hall on the second floor," persisted Matt.

"I did not stipulate that any of the apartments you mention should be on the lower floor," said the principal, laughing. "If you think it best to put the two docks for the barges on the second floor, of course you have a perfect right to do so."

"A boat is a good thing to have, but it is n't particularly valuable on the top of a mountain for sailing purposes, and I should rather have it

where there is a body of water," persisted Matt. "The docks will take up about fifteen hundred square feet, and that is space enough for a hall that will hold one hundred and fifty or two hundred people. It seems to me that the parts don't balance well."

"It is for you to balance them, then. I have given you the essentials of the boat-house, and I leave all the rest of it to you," replied Captain Gildrock. "If you please, Randolph, we will not argue the matter, for you are giving your associates points that I wish them to study out for themselves. Now we will consider the location and the engineering work."

"I don't see why these are put together," said Oscar Chester.

"Because they are very closely connected," answered Captain Gildrock. "If one of you decides that the boat-house ought to be built in the middle of the lake, he ought to tell us how the foundation is to be laid, and how we are to reach it."

"I see; and I understand it now," added Oscar.

"The location of the building, and of the wharf for the steamer or other craft we may have,

are included in the offer. The same student may compete for both prizes, and plan both the building and the location. If you locate the wharf where it cannot be conveniently reached by the Sylph or the Goldwing, the site selected would have to be rejected."

"But perhaps the plan of the fellow who wins the prize for the boat-house may not fit the location that gets the prize," suggested Oscar Chester, who seemed to be taking the deepest interest in the subject, though he had been the hardest boy in the whole before his admission to the school.

"I have considered that difficulty, and the two plans which are the best on the whole will be modified to adapt them to each other. Now, we will see the map, Mr. Jepson," said the principal. The instructor in drawing unrolled a chart on the wall behind the principal, and it proved to be Beech Hill Lake, drawn after the manner of the chart of Lake Champlain, with the compass, soundings, and character of the bottom upon it.

"This chart will be available for the inspection of all the students. It shows Beech Hill Lake, which is about eighty rods long by forty wide. It is simply an enlargement or basin of Meadow

Creek. I own the land on both sides of it down to Lake Champlain, and therefore we can do what we please with it, even if we fill it up. When you locate the wharf you must indicate how it is to be built, and how it is to be reached both on the land and the water side."

"I suppose there is only one way to build a wharf, and that is by driving piles," said Harry Franklin.

"The wharf may be of wood or of stone. If you look at the chart, Franklin, you will see that the bottom on this side of the lake is composed of rocks, into which no piles can be driven. Our present wharf was built like a log house, by piling logs one upon another, and filling in with earth. But the timbers are rotting, and it will soon need to be rebuilt, and I don't care to have another of that kind. On the other side of the lake the bottom is mud, brought in by the creek. That is all we need say about the wharf and location."

But half a dozen of the boys who had ideas on the subject before the school proceeded to ask questions, which the principal declined to answer.

"The season is advancing, and I wish to have this building up and covered in before the cold weather comes, and we want these plans at once,"

continued the principal, after he had quieted the inquirers. "After consultation with the instructors, I have decided to give you three days vacation, at the end of which time the prizes will be awarded. These three days are given you to study the subject and draw the plans."

"That is a short time," said Matt Randolph.

"But it is just as much for one as for another. You must do the best you can in that time. Fifty dollars is a considerable sum for a boy to have; and I must say now that the winner will not be allowed to fool it away. If they have no immediate use for it, the money will be placed to their credit in the Genverres Savings Bank; but it may be used at once for any proper purpose."

The students wondered, as they left the schoolroom, if the vacation had not been given on acount of the rebellion. But all of them hastened to the lake to look for a site for the boat-house.

CHAPTER XI.

DORY DORNWOOD CONFRONTS THE TOPOVERS.

SEVERAL groups of the students had formed on the banks of Beech Hill Lake, and were discussing the plans when the school-bell rang. They obeyed the summons, and began to think this was a queer sort of a vacation, when the principal informed them that he had forgotten something. Seeing them talking together at the lake had reminded him of the omission.

"I must exact a promise from each student that the plan he offers is wholly his own work," said Captain Gildrock. "There must be no conversation, conference, or comparison among you, and no student must show his plan to another, or tell another what it is. All of you who assent to this, and make this promise, will signify it by standing."

All the boys rose and remained standing. Some of them asked a lot of questions as usual, but in a few minutes the whole matter was perfectly understood.

"Under these conditions we shall have to stay in our rooms all the time," said Dave Windsor; and the remark created a laugh, for it looked as though the competitors for the prizes were to be prisoners as well as the rebels.

"You can do your work where you please. The schoolroom, the workshop, the grove, are open to you, as well as your rooms," replied the principal. "I consider that each pupil is put on honor not to look at the work of another. Before the prizes are awarded I shall ask each one if the plan is wholly his own idea, and I shall be willing to take his word for it."

"Then everything must be original, must it?" asked Bolly Millweed. "If we have seen an arrangement of doors or windows we like in a hotel or church, we must not use it."

"Not at all," answered Captain Gildrock, a little impatiently. "If you have ideas, they belong to you though you did not originate them. I simply insist that you shall not use one another's ideas. I don't expect you to originate many if any new ideas in architecture and engineering; only to combine old ones for the particular structure we have in view. I only ask you to do what any old farmer would do if he wanted to put

up a set of farm buildings; and he would not go near an architect or civil engineer, though it might pay him to do so."

"I understand it now," said Dave.

"I hope you all understand it; but if there are any questions to be asked it must be done now, for not one will be considered after I dismiss you this time. You may use any of the boats on Beech Hill Lake during the next three days without further permission."

The boys were ashamed to ask any more questions, and they left the schoolroom. They were not to talk together about the plans, and they separated outside the door, each to make his examination of the shores of the little lake by himself. In a few minutes they were scattered all along the border of the lake and creek, each one carefully avoiding all the others; for, under the skilful training of Captain Gildrock, each one had come to regard his honor as the apple of his eye.

Of course there were some of the boys who had no more idea of the making of a plan or the fitness of a locality for the boat-house than they had of the erection of a Chinese pagoda; and the principal hardly expected that more than half a dozen plans of the building and as many of the location would

be submitted. But he knew that the study given by the pupils to the subject would be worth more than the prize to them.

It was rather amusing to see some of them making so serious a matter of the plans, but probably every one of them thought he could select the best location for the wharf and boat-house, even if he could not make a mark towards the plan of the structure. Many of them seated themselves under the trees in view of the lake, with paper and pencil in hand, as though they had begun to make the rough sketches of the plan.

By the middle of the forenoon it was clear that some of the students had got their ideas in working order, for they went to the schoolroom, and began to make sketches on brown paper. But others were not satisfied with the limited survey they had made of the lake, and wished to visit the other side. Though the creek was narrow, there was no bridge on the Beech Hill grounds, and it was too wide to be leaped over. Mat Randolph proposed that they should go over in the barges. All hands were called, and they assented to the plan.

When they were seated in the boats, with only nine oarsmen in each, it was decided to make a

trip around the lake, in order to examine the shore from the water side. At the head of the lake, in the rear of the shop and schoolroom, was a rocky hill rising to the height of about a hundred feet in the loftiest place. The rocks rose perpendicularly from the lake, and the water was four feet deep alongside of them.

Bolingbroke Millweed was earnest and critical in his survey of these rocks, though hardly another of the party paid any attention to them. Probably most of them thought it was the most unsuitable place on the lake for the boat-house and wharf, though it was nearer to the mansion and schoolroom than the present wharf, where the barges were moored.

The two boats pulled with a gentle stroke around the lake, stopping at several points for a more careful survey. If any one had any brilliant ideas he was as silent as Beech Hill itself, at the head of the lake. This was the name of the elevation in the rear of the schoolroom, and the estate, the lake, and the institution had been called after it.

Beech Hill Lake extended north and south within a quarter of a mile of Porter's Bay, an inlet of Lake Champlain. Between the little lake

and the bay there was a beautiful grove, which was one of the most delightful resorts on the shipmaster's estate. He had intended to build a bridge across the creek, back of Beech Hill; but an attempt had been made to rob his house by a couple of New York burglars, who had landed at the head of the bay, and crossed the lake in a boat which had formerly been kept on the other side.

The idea of constructing a bridge had been given up after this attempt, but a small pier had been built near the inlet of the creek, for convenience in landing from boats at the grove. The barges went to this little wharf, and the crews landed, and separated, each to pursue his studies by himself. All of them made a careful examination of the west shore of the lake.

When he had finished his survey, Dory Dornwood seated himself under a tree not far from the pier. He did not seem to think he had any talent for architecture or civil engineering, and he had not a very strong hope of winning either of the prizes. The fact that he was the founder's nephew would not affect the matter in any way, for each competitor was to put only a word or character on his work, which was also to be written on an envelope containing his name. The examiners,

whoever they were, were not to know whose plan they were considering.

While Dory was contemplating the shores of the lake, and making up his mind in regard to the best place for the wharf, he heard voices in the direction of the pier. Looking that way, he saw a squad of boys on the little wharf. Their attention was fixed upon the two barges, which they were examining with interest, not to say enthusiasm.

Genverres had its proportion of bad boys as well as good ones, and Dory recognized these visitors to the grove as belonging to the former class. He had not been in the town long enough to have any acquaintance with them, and hardly knew them by sight; but his uncle had pointed out a couple of them whom he suspected of stealing fruit from his garden. In fact he had suffered so much from the depredations of fruit-thieves, that he had taken extensive and expensive precautions to keep them out of his grounds.

The captain had built a fence ten feet high from the main road to the creek; the latter being considered a sufficient barrier on the west side of the estate. The grove could easily be reached, but the grounds on the east side of Beech Hill Lake

were now well protected. Dory saw that the leading spirit of the squad of visitors was Tom Topover, a reckless young rascal of sixteen or seventeen, who had made himself a terror to the farmers on the outskirts of the town, as well as to many peaceable citizens in the village.

The presence of the "Topovers," as they had come to be called, after their leader, boded no good to the boats, for the squad were free-and-easy fellows, who had no more regard for the rights of property than they had for the cleanliness of their faces and their garments. Dory Dornwood knew how easy it was to get up a quarrel with this class of young ruffians, and he did not think it was wise to go near them; but he thought it was best to show himself, so that they might not be tempted to meddle with the barges by the supposition that they were not seen. He began to walk about where he could not fail to be observed by the visitors.

Dory looked all around him through the grove, but he could see only a few of the other students. Doubtless they were all absorbed in the study of the plan and location, for not a sound could be heard except the dashing of the water against the rocks in the creek above the lake.

He and Matt Randolph had each a boatswain's whistle, used in calling the boats' crews when they were separated, as in the present instance. Its shrill pipe could be heard at least half a mile in a still day; but the coxswain of the Winooski hoped he should have no occasion to use it. The Topovers had seen him, and probably some of the other students, and must know that the crews of both boats were in the grove, or the barges would not be at the wharf.

He watched the visitors very closely, but they manifested no disposition, so far, to meddle with the boats. They were looking at them, and made them the subject of a great deal of animated conversation. Dory could not blame them for being delighted with the barges, and the fact they were pleased was an evidence that they had some good taste. But presently he saw four of them walking towards him. They came in a direct line, and the coxswain had no doubt they had something to say to him. One of them was Tom Topover; another was Kidd Digfield; the two whom the captain had indicated as the plunderers of his garden. He did not know the names of the other two.

"Hullo, Dory!" called Tom Topover, when

the party came within hailing distance of him, "Them's tip-top boats you 've got down there."

"They are very fine boats," replied Dory.

"I s'pose you fellers have big times in 'em," continued Tom, as he and his companions halted in front of the coxswain.

"We have first-rate times in them," answered Dory, with a pleasant smile, for he was very careful that there should be nothing exasperating in his conduct; and he had learned that one's manner of saying anything could be very provoking, even when nothing offensive was uttered.

"You ain't usin' them boats now: won't you let me and the fellers take a little turn in 'em on the pond?" Tom Topover proceeded with as much assurance as though he was making only a reasonable request, as he evidently believed it was.

Dory felt that he had no more right to lend one of the boats than he had to loan one of his uncle's shirts; and he saw the beginning of trouble in the request.

CHAPTER XII.

TOM TOPOVER HAS REASON TO BE ASTONISHED.

TOM TOPOVER was a stout and wiry fellow, and he had the reputation of being the greatest fighting character in Genverres. He made a quarrel whenever he could, and he had proved a handful to several men who had been called upon to tackle him in some of his marauding exploits. With this reputation he was afraid, of no one though a village policeman declared that there was more bully than fight in him.

Dory Dornwood wondered that Tom had taken the trouble to ask permission to use the boats; but as he had done so, and done it in a respectful manner, it was his duty to answer him; and the circumstances made it a very disagreeable duty. The coxswain was not a "bruiser," and he had no taste for pugilism, though, if attacked or assaulted, he was a very vigorous opponent. . . .

"Those boats belong to Captain Gildrock," replied Dory to the request of the Topover.

"I know that, but you fellers takes care on 'em,

and we only want to use 'em a few minutes while you ain't in 'em," continued Tom, in a very pliable manner for him. "We won't hurt 'em a mite, and we'll fetch 'em back jest as soon as you fellers want 'em!"

"The boats don't belong to me, and I have no right to lend them," added Dory, with a pleasant smile to soften his refusal.

"The cap'n won't say nothin' if you just let us take one of the boats for a few minutes," pleaded Tom. "You need n't tell him, and he won't know nothin' about it."

"I have no right to lend the boat, and I can't do it," persisted Dory, who had no confidence in the statements or the promises of the Topover.

"What 's the reason you can't?" demanded Tom, with a little more vigor in his tones.

"I have told you the reason: the boats don't belong to me. What would you say if I should lend your hat to some fellow without your permission?"

"I should n't say a word; just as lief you'd do it as not," promptly returned the applicant. "I ain't stingy with what belongs to me. If them boats was mine, I 'd let you have 'em all day when I wa'n't usin' 'em."

Tom Topover made this display of liberality in a tone of triumph, and he appeared to think it ought to settle the question at once. He looked as complacent and self-satisfied as though he had actually loaned the coxswain half a dozen barges every day for a week.

"I have ten dollars belonging to my uncle which he gave me to pay a bill in Burlington when I go there to-morrow," said Dory, amused but not convinced by the unselfish offer of Tom. "Do you think it would be right for me to lend that money?"

"Right? Of course it would, if any good feller like me wanted to borry it. Lend it to me, and I will pay it back next week when a man gives me twenty dollars he owes me," answered Tom glibly.

"I don't think it would be right, and I can't lend the money or the boats because they don't belong to me. You must go to Captain Gildrock if you want to borrow the boats," replied Dory, finding it was useless to argue the point with one who had no respect for the rights of property.

"You 'll let us take one of the boats, won't you? I hain't got no time to go 'n find Captain Gildrock," continued Tom.

"I will not let you take one of the boats," said Dory very decidedly. "I have told you I could not."

"All right! The boats don't belong to you, and 't ain't none of your business," chuckled Tom. "We 'll take a little turn in the furder boat, and I 'll see the cap'n arter we come back, and make it all right with him."

This seemed to be a satisfactory arrangement to Tom Topover, and he started for the wharf, followed by his companions, with the evident purpose of carrying out his idea at once.

"The boats don't belong to me, but, as you said, we have the care of them, and we can't let any one take them without Captain Gildrock's permission."

"What are you go'n to do about it?" demanded Tom, halting, and then retracing his steps to the spot where the coxswain stood. "You don't reckon I keer for you, do you?"

"I don't want to make any words about it, and I have said all I have to say," replied Dory, and he still maintained his quiet demeanor, though things began to look like an immediate battle.

"I don't want no words nuther. I 'm go'n to

take one of them boats, and I want to know what you are go'n to do about it," blustered Tom

"I don't want to do anything; but the boats are in the care of our fellows, and we are responsible for them. If you meddle with them, I shall be obliged to call the crews, who are here in the grove," replied the coxswain.

"Call the crews, will you?" said Tom, clenching his fists and siding up towards Dory.

"There 's two or three fellers comin' down here," interposed Kidd Digfield.

"You 'n' Nim Splugger look out for 'em, and I'll polish off this chap," replied Tom, as he glanced into the grove, where he saw Matt Randolph and Oscar Chester approaching. "Them boats don't belong to you, and 't ain't none of your business who takes 'em. I'll bet you don't call no crews nuther," continued Tom, assuming a decidedly belligerent attitude.

"I have nothing more to say," returned Dory, bracing himself up in readiness to meet whatever might come.

"All right if you hain't; and I hain't got much more to say; only if you try to call them crews, you 'll wish you 'd been born deef and dumb," added Tom, savagely, and enforcing his threat

with a flourish of his dirty fists. "Come back, Kid, and be in a hurry," he shouted to his companions he had sent to look out for Matt and Oscar, who were still too far off to see what was transpiring near the wharf.

Tom Topover started at a smart run for the wharf, closely followed by his three companions. He had evidently changed his tactics all of a sudden, and concluded not to fight any battle. The haste displayed indicated that they were hurrying to get into the boats before any of the crew could arrive. Dory comprehended the situation at once, and blew a long pipe on the boatswain's whistle, which woke the echoes of the quiet grove.

"Git into them boats!" shouted Tom Topover, to the companions he had left at the wharf. "Untie 'em, and pick up the oars!"

The Topover intended to get possession of the boats while it was possible to do so, and not lose any time in thrashing Dory, which he regarded as an easy matter, a mere form. He had called his crew with the whistle, and Matt, as soon as he heard it, had blown his own pipe. He and Oscar had by this time got an idea that something was wrong, and were running with all their speed towards the wharf.

Dory was not content with merely blowing his whistle, and, as soon as he saw what Tom meant to do, he ran after him. There were about a dozen Topovers, as nearly as he could judge, but he did not stop to ask himself what he should do alone against such a host. The leader of the young ruffians was not as fleet of foot as the three companions who had attended him to the grove, and they reached the wharf when he had accomplished about two thirds of the distance.

"Hurry up, Pell Sankland!" shouted Kidd when he came to the wharf, though the one called was not far ahead of Tom.

Kidd Digfield appeared to be the second in power and influence of the party, and he gave orders enough when he reached the vicinity of the pier to confuse and confound those who had obtained a footing in the boats. There were five in one barge and four in the other. They had already cast off the painters, and hauled the boats up to the side of the wharf.

"Let the boats alone!" shouted Dory, when he had nearly overtaken Tom Topover.

"What are you go'n to do about it?" demanded Tom, halting, and facing about.

"Those fellows must not meddle with the

boats," answered the coxswain, and he was not disposed to stop to parley with the chief ruffian.

"'T ain't none of your bread and butter; you said so yourself," interposed Tom, stepping in front of Dory with clenched fists to bar his further advance.

The coxswain was not disposed to waste any time in words with Tom, and he attempted to pass him by dodging to one side, but the ruffian threw himself upon him, seizing him by his coat collar. This was an act of violence, and it roused the lion in Dory's nature. He shook off the grasp of his assailant without any difficulty, for if he was not as quick as lightning, he was about as near it as a boy of his weight could be. Once more he attempted to pass his assailant, but Tom got in front of him again.

"If you want to fight, come on!" foamed the Topover, as he put himself into the order of battle.

"I don't want to fight, but I shall defend myself," replied Dory. "Out of my way!"

Instead of taking himself out of the coxswain's path, Tom aimed a blow at Dory's head. The ruffian might as well have pitched into the sea-serpent or a royal Bengal tiger as into Dory Dornwood. He was rather smaller than his assailant,

but he had learned the art of self-defence of a Burlington barber, who had formerly being a teacher of the "science." His frame seemed to be made of steel wire. He had brains and great dexterity of movement. Abundant exercise in boats and other training had fully developed his powers, and every student in the Beech Hill Industrial School knew that he was a terribly "hard hitter."

The coxswain easily parried the blow aimed at him with his left hand, and planted a sledge-hammer hit with his right in Tom's face. The Topover went just where Oscar Chester had gone on a similar occasion at Plattsburg — on the ground, flat on his back. Doubtless the leader of the young ruffians was greatly astonished, not to say confounded, at this unexpected reception, for his historical studies had been neglected, and he had never heard of the Battle of Plattsburg, at least the particular one to which we refer.

Dory did not think it necessary to push the battle any farther at the present moment, though Tom instantly sprang to his feet, in spite of some confusion in his ideas. With one eye on his assailant, Dory retreated a few steps, and then resumed his march on the wharf.

"Hold on! I hain't licked you yet, and I'm go'n to do it afore I get through," said Tom, moving towards his intended victim.

"I can't wait for you to do it now," replied Dory, as he broke into a run.

But Tom began to swear like a pirate, and rushed after Dory. The latter had no difficulty in keeping out of his way, and he reached the wharf just as the villains in the boats had shoved them clear of the pier. Kidd had put six of the party in each barge, and they had manned the oars. But they had been obliged to leave their leader behind.

Tom Topover now observed this bit of strategy, and he divided his vials of wrath between the coxswain and his lieutentant.

CHAPTER XIII.

A VICTORY FOR THE TOPOVERS.

DORY DORNWOOD reached the wharf too late to prevent the ruffians from getting off in the boats; and his failure filled him with consternation. It was not for a few minutes, as Tom Topover had said, that the ruffians wanted them, but for all day, or for a week or a month, if they were not sooner taken from them. Living on the river and near the lake, such fellows would naturally take to the water, and all or most of them knew how to handle an oar, but not one of them could be called a skilful boatman, though Kidd Digfield claimed to be a sailor on the ground that he had made two trips in a lumber schooner.

Even if the Topovers were competent to handle a common row-boat, it was quite another thing to manage a barge fifty feet long, pulled by twelve oars. If they succeeded in getting the boats out of the river, they were likely to swamp them in the waves, smash them on the rocks, or grind their

cedar bottoms on the gravelly beaches. Dory had a genuine affection for the Winooski, and it grieved him sorely to see her in the hands of such a villainous crew as the Topovers.

Of course there was nothing to be done at Beech Hill until the barges were recovered. The wind was northwest and blowing fresh, as on the day before, and it was dangerous for an unskilful crew to venture out on the lake. The lives of the reckless party would be in peril as well as the boats.

Dory had but a few moments to consider the matter. Matt Randolph and Oscar Chester were near him, out of breath after the run they had made. Tom Topover had retreated to the shore of the pond; and the coxswain of the Winooski, not wishing to engage in a fight, had neglected to follow him. Nim Splugger had taken command of the Gildrock, and Kidd Digfield of the Winooski. They had made sure to put a couple of lengths between the barges and the wharf, and in this position they were as safe from any interference of the boys on shore as though they had been in the middle of the lake.

There was no boat at the grove, and no means of pursuing the captors of the barges. In fact,

nothing at all could be done, and for the moment the situation looked hopeless to the coxswains. Kidd proceeded to give directions to his crew as soon as the immediate danger of capture was passed. Taking the tiller-lines himself, he brought something like order out of the confusion in his crew. After a great deal of sharp talk, he succeeded in getting his fellows so that they could pull a stroke together, and the Winooski slowly moved towards the lower end of the lake.

Kidd could not help seeing the chief Topover on the shore, and as soon as his crew were in working order, he headed to the point where he stood. Dory immediately observed the change in the course of the Winooski, and understood the purpose of her present coxswain, which was to take Tom on board. By this time Matt and Oscar were as near the spot where Tom was waiting for the boat as Dory was.

"Head them off!" shouted Dory, as he started at the top of his speed.

"Pull lively, fellers!" yelled Kidd Digfield, when he saw the three students running towards his leader.

They did pull with all their might, and as the Winooski was bound to go ahead when the oars

crossed her gunwale, she was too much for the runners on the shore. Dory hoped one of the clumsy oarsmen would "catch a crab" at that important moment, but not one of them gratified his desire. He was within a couple of rods of Tom, and was all ready to pitch into him, when Kidd ordered his crew to stop rowing, and then to back water.

The inexperienced coxswain had not calculated well, and the boat lost her headway when her sharp bow was within ten feet of the shore. Dory's hopes swelled when he saw the boat come to a stand, and he increased his speed.

"Pull again!" shouted Kidd, almost crazy with excitement, when he realized that he was losing the game.

But his undisciplined crew were in confusion, and only half of them could bring their oars to bear. The barge went ahead again just as Dory was about to pounce on Tom Topover. The leader of the ruffians saw his peril, and he did not seem to be "spoiling for a fight" at just that moment, perhaps because his late victim had been reinforced by a couple of his companions. He had not another instant to spare, and Tom made a vigorous leap for the bow of the Winooski.

The stem of the barge was not more than three or four feet distant when the Topover made his leap, but the pointed bow was an ugly foundation to strike upon. He could not throw his body into the fore sheets, but he succeeded in grasping the gunwale with both hands, while the lower half of his body went into the water. Unfortunately the force of his blow had been imparted to the forward part of the barge, and it had been shoved farther away from the shore.

Tom Topover dragged himself into the Winooski. Seizing a boathook, he stood up in the bow of the boat, evidently intending to use it in case of need in defending himself from an attack of his pursuers. The two coxswains reached the shore with their wind about gone, to find that ten feet of deep water lay between them and the nearest part of the Winooski. They could leap into the water and swim to her, and Oscar Chester proposed to do so; but this would have been folly, for the ruffians could easily beat them off with their oars and the boathooks.

Nim Splugger, who had assumed the command of the Gildrock, did not claim to be a sailor, though he had often pulled an oar. He lacked confidence in his own ability, and was therefore

not so imperative in his orders as Kidd. The boat was clear of the wharf, and he took time to arrange his crew at the oars. Before he could get them into working order, their attention was attracted to Tom and the movements of the Winooski. They rested on their oars, watching the issue of the affair near the shore.

"Now, back her, fellers!" yelled Kidd Digfield, as soon as he saw that Tom was in the boat.

"No, you don't back her, Kidd!" roared Tom Topover. "That ain't no way to do it! Pull on this side," and the leader pointed to the starboard side; "back on t'other!"

Tom was right, if he did not claim to be a sailor, and Kidd was wrong, for backing her would only have sent the barge along parallel with the shore, with the chances of a deviation which would have thrown the stern within reach of the students on shore. Tom called his disciples by name, and told each one what to do. Kidd took in his captain's idea, and helped him with his words. Under their united directions, the head of the Winooski was thrown around, and she was forced out into the lake.

"I hain't done with you yet, Dory," yelled Tom, shaking his fist at the proper coxswain of the

barge. "Afore you are a week older I'll give you the biggest lickin' you ever got in your life. I'll crack half the bones in your body! I'll mash your head till you won't know it from a last year's punkin!"

"You had better bring those boats back before you get into hot water," replied Dory, more in grief than in anger. "Let me tell you that you are stealing them, and Captain Gildrock will haul you up before the court for it."

"Shut up, you monkey milksop! When we've done with the boats we'll set 'em a-fire!" returned Tom.

"I can't stand this! I shall boil over!" exclaimed Oscar Chester. "I should like to get near enough to that scallawag to pitch into him."

"Keep cool, Oscar," said Dory. "We can't do anything just now, and it's no use to boil over."

"What makes that fellow so down on you, Dory?" asked Matt Randolph. "He didn't say anything to Oscar and me."

"Perhaps I gave him reason to be down upon me, though I only defended myself. I knocked him over when he tried to stop me from reaching the wharf," answered the coxswain of the Winooski. "If I had only got among those ruffians

half a minute sooner, I might have saved the boats, though I should have had to stand up against the whole of them."

Matt wanted to know more about the affair, and Dory told all that had happened since he first saw the Topovers. By the time his fellow coxswain had heard the story, the rest of the two crews began to arrive. They could see for themselves why they had been summoned so soon. Tom had taken possession of the stern-sheets of the Winooski, and sent Kidd to one of the vacant thwarts to row. The ruffians were struggling with the oars, for, though they had the strength, they were utterly lacking in discipline and knowledge. But they pulled with some degree of unanimity, and the Winooski went ahead at a very moderate rate. The Gildrock was doing better than her consort, for Nim Splugger did not confuse his crew with too many orders, and each one got the hang of the oar in his own way.

Both boats were moving, and were headed towards the outlet of the lake. Their regular crews at the grove could only look on, for they were powerless to raise a finger to recover the boats at present. One after another suggested various experiments for demolishing the Topovers,

but their schemes were either foolish or impracticable. Oscar Chester wanted to run down to the narrowest place on the outlet, and make an attack on the marauders; but both Matt and Dory were not in favor of such a plan.

"If we get desperate, and try to break things, those villains will smash the boats rather than let us get them. That Tom Topover is as mad as a March hare at the rap Dory gave him," said Matt.

"I think we had better report to Captain Gildrock, for I don't see that we can do anything here," suggested Dory, as he gazed sadly at the retreating barges.

"We can't even get over to Beech Hill," added Luke Bennington, as he glanced across the lake at the school grounds.

"We must go around by the road, and it is over a mile," added Pemberton Millweed.

"It seems to me that somebody on the other side must have seen what was going on," said Matt.

"I don't think anyone has seen what was going on," replied Dory. "Bates is on duty in the dormitory, the teachers are attending to their own affairs, and probably Captain Gildrock is in the house. If any of them saw the boats going down

the lake, they were too far off to know who were in them. If my uncle knew anything about this business, he would have sent a boat over before this time."

"If we had been in any mischief, half a dozen of them would have seen us," said Thad Glovering, with a laugh.

"It's no use to stay here, and we may as well walk around by the road and report to Captain Gildrock," added Dory.

This was considered the best thing to do, and in half an hour they arrived at the school grounds on the other side of the lake. No one knew anything of what had happened on the other side of the water. They could not find the principal about the place; and at last one of the stablemen said he had gone to the village with Mrs. Dornwood in the buggy.

Mr. Jepson, the master machinist, was the only instructor they could find about the premises, and he agreed with Dory and Matt that something should be done at once.

CHAPTER XIV.

THE PURSUIT IN THE GOLDWING.

IT was easier to decide that something should be done than it was to determine what to do. Mr. Jepson suggested the Sylph, but it would take some time to get up steam, and Dory thought she would not be the most convenient craft in a conflict with the barges. He was decidedly in favor of pursuing the marauders in the Goldwing.

In the smashing breeze on the lake she would sail nearly as fast as the steamer, and he could have her under way in five minutes. The schooner could follow the boats into shoal water, while the Sylph must have eight or nine feet, and if Tom Topover was smart, she might not be able to go within a mile of the barges.

"I am more afraid the rascals will smash the boats than that we shall not get them again," said Matt Randolph. "They are reckless fellows, and will run them on the rocks or shoals."

"We must look out for that," replied Dory.

"If they go out on the lake they are more likely to swamp them than they are to smash them. But we are losing time, and I should like to catch the villains before they are out of the river, for I think they won't hurry after they get out of sight of Beech Hill."

"Goldwing it is!" exclaimed Luke Bennington.

"So say we all of us!" shouted the others, beginning to be somewhat excited at the prospect of a lively time with the Topovers.

"Dory shall command the expedition," added Thad Glovering.

"Matt is a better skipper than I am," modestly added Dory.

"No, I am not," protested Matt. "And Dory is better acquainted with the Goldwing than I am, and he shall conduct the affair."

"But you can't all go in the Goldwing," interposed Mr. Jepson. "There are eighteen of you, and you will be so crowded that you will knock one another overboard."

"Although the schooner will carry eighteen well enough, we can do nothing on board with so many, and nine or ten are all we need," added Dory.

"But there are fourteen of the ruffians," sug-

gested Thad Glovering. "They are used to fighting, and we want as many fellows as they have."

"I don't believe there will be much fighting," replied Dory, laughing; "but if there should be, we can do better with ten than we can with twice that number. With eighteen we should be in one another's way."

"Ten only will go," said Mr. Jepson decidedly.

"But who shall they be?" demanded Luke Bennington. "Every fellow wants to go and have a hand in the fun."

"There is where the difficulty comes in," added Matt. "I think Dory had better select his own crew; and for one, if I am elected to stay at home, I won't complain."

"You know very well that you will be elected to go, Matt," said Will Orwell.

"I don't like to select a crew; I wish all could go, and I shall be satisfied with any nine," interposed Dory.

"Under these circumstances the best thing a fellow can do is to volunteer to stay behind; and I volunteer not to go," said Oscar Chester. "I should like to go as well as the next one, and I don't want any fellow to think I am chickenish."

"We know you are not, Oscar," added Dave

Windsor; and all the students began to clap their hands at the self-sacrifice of the first volunteer.

Bolingbroke Millweed followed Oscar's example; then came Matt Randolph and Luke Bennington. It was the unselfish and brave thing to volunteer to stay at home, and no one was willing to stay behind in doing a good deed. In a moment more the whole seventeen had volunteered to remain at Beech Hill.

"I don't like to be alone, and I will join the crowd," exclaimed Dory, greatly amused at the situation. "We are just as badly off as we were in the beginning, and the Topovers are pulling down the river all the time. I will tell you how to settle the matter so that it shall be fair for all."

"All right, Dory: propel!" exclaimed Dave Winslow.

"Matt Randolph is the coxswain of the Gildrock, and he must go anyhow. For the other eight you must draw lots. Mr. Jepson will attend to the matter, and Matt and I will get the Goldwing ready," said Dory, beginning to be impatient at the delay.

All of them clapped their hands in token of their approval of the plan. The master machinist took out his pencil and wrote the numbers from

one to sixteen on the back of a letter. Around eight of them, taken at random, he drew a square. Calling Miss Millweed from the schoolroom, he gave the paper to her.

"Now, Luke, select a number less than seventeen," continued Mr. Jepson.

"Forty-two," said Luke, laughing.

"I shall have to turn you over to Mr. Darlingby for further instruction in arithmetic," replied Mr. Jepson.

"Twelve," shouted Luke.

"Is that number enclosed in a square, Miss Millweed?" asked the machinist.

"It is not," replied the lady clerk.

"Then you are blackballed, Luke," added Mr. Jepson.

"Of course I am; I knew I should be."

"But with the eight who are elected not to go we will go down the river in the two four-oar boats; and we may be able to assist in the capture of the barges," said the machinist.

All hands applauded this announcement, and the lot proceeded. Oscar Chester, the first to volunteer to remain behind, was one of the first who selected a squared number. This result was heartily applauded. From being the worst bully

in the crowd he had come to be a very gentlemanly and unselfish fellow. The discipline of Captain Gildrock had done wonders for him.

By the time the last of Dory's crew had been drawn, the schooner was under way, and standing in towards the wharf. The eight who had been "blackballed," as the machinist called it, were directed to man the two four-oar boats, and put the others on board of the yacht.

"Now we are all right, and under way at last," said Matt Randolph.

"But the Topovers have a start of all of an hour ahead of us, and if they have been using their oars they must be well out in the lake by this time," added Dory.

"I don't believe they will go a great way out into the lake," replied Matt. "There must be a smart sea at the mouth of the river, for the wind is a good deal heavier than it was yesterday."

"The rest of the fellows are coming down the river in the four-oar boats," said Oscar. "I suppose they are going to help us, and we ought to make short work of this affair."

"Are you going to lay them aboard, Dory?" asked Matt, who was rather inclined to quiz his fellow coxswain.

"I have n't the least idea how we shall manage the business," replied the skipper of the Goldwing.

"But you ought to have a plan," suggested the New York boatman.

"How can you make a plan before you know what the Topovers intend to do, and before you ascertain the situation of the boats?" asked the skipper. "It's no use to try to cross the river before you get to it."

"Of course not; but do you mean to board the barges and fight it out, or to manœuvre them out of the game as you did the Chesterfields?" continued Matt, rather disappointed to find that Dory did not lean upon him as much as he desired and expected.

"I am ready to do either or both, as the circumstances happen to favor," replied the skipper. "If you will take the tiller, Matt, I will go forward and 'clear ship for action.'"

The schooner was going at great speed, with the wind on the beam, and the outlet was very narrow. Dory went forward, and proceeded to arrange certain rigging on the forward deck. He did not explain what he was doing, but he worked as though he had some idea of his possible action in the encounter with the Topovers.

While he was busy with the lines, the centre-board of the Goldwing suddenly flew up, and a moment later the bottom of the yacht was scraping on the sand. Dory suspended his work, and looked up.

"Here we are!" he exclaimed, as he looked around him, and then at the helmsman.

"I thought there was water enough here for her," said Matt, greatly chagrined to find that he had run the schooner aground when they were in such a hurry.

"So there is if you only keep in it," replied Dory laughing, for he did not wish to hurt the feelings of his fellow coxswain. "I have done that same thing myself, Matt, and I did it as handsomely as you have done it."

"We have to haul her up into the wind here, and I was afraid she would go ashore on the other side," pleaded Matt. "But here we are with the centreboard up in the air, and the planks rasping the sand on the bottom."

The disaster occurred at the bend in the outlet, which Dory called the "V point." The current, which was quite strong at high water, deposited a great deal of sand at the apex of the point, while its force made a clear channel near the shore on the

other side. When the wind was northwest it was necessary to hug the point as closely as possible.

The two oars and the boathook were at once brought into use, but it was impossible to move the hull in this way. Dory sent a couple of the crew ashore in the tender with a line, which they made fast to a tree near the deep water. The anchor was taken on deck, and the other end of the line passed through the block on the bowsprit. All on board manned this line, and the bow was hauled off almost in the twinkling of an eye. Matt insisted that Dory should take the helm, when the tender had returned with the line.

It was not an easy thing to get under way again in that bad place and Matt was very much mortified at the mishap. The skipper said all he could to comfort him, and gave him the helm again as soon as the schooner was in Beaver River. He arranged his lines as he had before, and by the time he had done this the Goldwing was approaching the mouth of the river. But a bend prevented them from seeing out into the lake.

"There they are!" shouted Dory at the heel of the bowsprit, where he could get the first view of the white-capped waves. "They are doing the very thing I was afraid they would do."

"What 's that, Dory?" asked Matt, starting the sheets as the course of the yacht was changed.

"They are standing across the lake, and in a short time, if they make any headway, they will be in smooth water," replied the skipper.

Matt did not ask any questions, and possibly he suspected that Dory was his superior in the management of a boat. If he did, it was only because he was mortified at the accident at V Point. The Goldwing went out into the lake, and began to dance on the billows. The two barges appeared to be doing very well, in spite of the inefficient crew at the oars. Both of them were pitching smartly, and were not taking in water except in the form of spray.

In a few minutes the Goldwing was within hailing distance of the barges. Dory declined to take the helm when Matt suggested, and was again busy with his lines on the forward deck.

CHAPTER XV.

THE SKIPPER USES A NAUTICAL LASSO.

"WHAT 'S that?" called George Duane, while Dory was still busy on the forward deck.

This question was called forth by what sounded like a volley of cheers from the New York side of the lake; but nothing could be seen to indicate the source from which the noise came.

"There it is again," added John Brattle, as three distinct cheers came over the waves. "There is some sort of a party up that little cove."

There was an inlet just to the south of the barges, from which it was now evident that the sounds came. But parties from the surrounding country frequently had frolics on the shores of the lake, and the students concluded that the cheers came from one of these gatherings.

The Topovers continued on their course, and seemed to be laboring to increase their speed, which was certainly moderate enough. They

pulled but six oars in each barge, and against the wind and the heavy sea they could make but little progress. The Goldwing was making three miles to their one, and the moment for action was near.

Though the Goldwing was close-hauled, she leaped over the waves like a bird, and Matt was running directly for the barges, one of which was following the other, the Winooski being ahead. The skipper finished arranging the lines on the forward deck. Getting on his feet he made a careful survey of the situation.

"Matt, can you go to windward of the barges?" he called to the helmsman.

"I might, possibly, but it would be a close squeeze," replied Matt.

"Then we must work more to windward: tack, if you please," added Dory; and it was evident that he had prepared his plan of attack.

Matt came about and headed the Goldwing to the north. Dory kept his eye on the barges, but he gave no hint of his method of operations. Probably Matt thought he was entitled to be informed in regard to the plan, but the accident in the river for which he was responsible had humbled him, and he asked no questions.

When the schooner had made about a quarter of a mile of northing, the skipper gave the order to tack again. Matt was directed to steer for a certain point on the shore, which would carry the yacht a little distance to windward of the barges, allowing for the headway they would make before she could reach them. In that lively breeze even the width of the lake at Beaver River was only a run of a few minutes for the Goldwing, and she was very soon abreast of the Gildrock. The Winooski was about a hundred fathoms ahead of her.

"Now, Matt, we have some sharp work to do, and every thing must be done on the instant," said Dory, when the Goldwing had passed the Gildrock and was up with the Winooski.

"Perhaps you had better take the helm, then?" suggested the coxswain of the Gildrock.

"I can't, for I have a job to do here on the forward deck. We shall go about, and run for the Gildrock in a moment," replied Dory. "I want you to make for her stem just as though you meant to run her down."

"All right, Dory; I will obey orders to the letter," returned the helmsman.

"I would rather you would obey them in spirit;

so if I make a blunder, and get knocked out, I want you to correct it," added Dory lightly.

"I don't know what you are going to do, and I can only obey orders to the letter," said Matt.

"I could not settle on any plan until I had seen how the barges lay; and it is too late to explain now. Ready about!"

Matt promptly obeyed the orders given him, and the schooner came entirely around. It would have been a shorter way to jibe her, but the skipper never ventured upon this manœuvre when the wind was at all fresh; for he was not one of those venturesome boatmen who think they are not smart unless they incur needless risks.

Dory saw that Matt was carrying out his orders to the letter, and it was clear that Nim Splugger, the acting coxswain of the Gildrock, was getting nervous as he saw the Goldwing dashing down upon his craft.

"What are you about? You will run over us!" yelled Nim, when he saw the schooner within twenty feet of him.

The oarsmen were inclined to desert their posts, and kept looking behind them at the Goldwing. But both barges had been in the trough of the sea, and those in charge of them had found by

actual trial that the only way they could go was directly across the lake, against the wind. This was the reason why the barges were nearly over to the New York shore, and not because they were following a plan of their own.

"Keep to your oars, fellers!" shouted Nim Splugger, when he saw several of his crew cease rowing. "Never mind that boat! She won't run into us."

But Nim had his doubts on this point, for the Goldwing did not budge an inch from her course. Dory had looked over his lines, and was watching the course of the schooner and the position of the Gildrock. When the schooner was within ten feet of the barge, Nim gave a frantic yell, and all the rowers gave up in despair.

"Keep her away a little, Matt!" called Dory, who was now on his feet with a line in each hand.

The Topovers in the Gildrock gave a desperate yell, satisfied that they should be floundering in the angry waters the next instant. The Goldwing fell off a trifle at this moment, in obedience to the helm. Dory had fixed the line in his left hand on the spur of the light boathook, which he extended as far as he could reach. As he did so, one of the covers from the cook-stove, which he had secured

to the bight between his hands, dropped into the water.

Thus arranged, the line formed a snare in the shape of a triangle, the stove-cover sinking the lower angle a couple of feet under water. As the skipper held the snare, the Gildrock ran her bow directly into it. The bight of the line was a slip-noose, and as the schooner drove ahead, it tightened up.

As the Goldwing went ahead, Dory paid out the line rapidly, for a single jerk would have upset the barge. The Topovers in the boat were so terrified that they did not comprehend what Dory was about.

"Hard down your helm, Matt!" shouted Dory, with tremendous energy, when half his line had run out, and the bow of the schooner was abreast of the stern of the Gildrock.

Oscar Chester had been stationed at the main-sheet, and the instant Matt put the helm down he hauled in the sheet with all his might. The effect of these orders, as they were sharply executed, was to cause the Goldwing to circle around the stern of the barge, and come up close-hauled on her starboard side.

"Now we are all right! It's a success!" cried

Dory, with all the enthusiasm of a person who has won a great victory.

But even his own crew did not understand what he was about, and had not the least idea of the working of his plan. All that had been done had been accomplished in a few seconds, and the rapid working of the schooner absorbed all their attention.

When the Goldwing came about under the stern of the barge, Dory rushed aft with the end of his line in his hand, and made it fast to a cleat. The rope had sunk in the water, and passed under the keel of the Gildrock.

"Touch her up, Matt! Lively, if you please!" said Dory, as he secured the line in his hand.

But the schooner had not yet got under full speed since she came about, and when the mainsail shook she had lost about all her headway. But she was not permitted to come to. Dory took the helm now, which Matt was very willing to have him do.

"Go aft, every one of you!" shouted Dory to the Topovers in the barge. "If you don't you will be overboard in a moment!"

The six oarsmen had been stationed in the middle of the boat, leaving the vacant places forward

and aft. Without waiting for orders from Nim Splugger, the rowers all hurried aft as fast as the uneasy motion of the craft would permit. This change in her burden caused the bow of the Gildrock to be lifted out of the water, which was precisely what Dory desired. Putting the helm of Goldwing up he allowed the yacht to gather headway by slow degrees. He had lassoed the barge, but he was not certain of the effect when he should attempt to tow her. The slip-noose had come home so that the knot was nearly in line with the stem.

"I see now what you are about," said Matt, while Dory was experimenting with the process of towing the barge. "But those fellows will cut the line as soon as they get a little used to the movement of the boat and understand what you are doing."

"If any one of them attempts to go forward, we can pitch him into the lake as quick as we can shift the helm of the Goldwing," replied Dory confidently.

"I see!" exclaimed Matt, laughing. "A pull sideways would heel the barge over so that the water would go over her gunwale."

"The two four-oar boats are coming!" shouted Dick Short, "Mr. Jepson is in one of them."

"Good! We may want some of those fellows before we get through with this business," replied the skipper.

"But what are you going to do with your game now that you have snared it, Dory?" asked Matt.

"I am going to put the Topovers ashore over here, and send the Gildrock home at once," answered Dory. "I should have told you about my plan, Matt, but I did n't believe in it myself until the last minute. I was sure you would laugh at it; and if I did not succeed in carrying it out I did not want you to have to bear any of the responsibility of its failure."

"I think I should have laughed at it; and I can't help doing so now," added Matt, suiting the action to the words.

With the whole length of the line out, the Gildrock towed better than Dory had expected she would. But the barge both pitched and rolled as it was dragged at an angle over the waves, and the Topovers in her had to hold on with both hands. With only half her usual crew, and these all in the stern sheets, the tow-line did not force her bow under, and she kept very nearly in her proper trim.

Finding that she went along very well, Dory

headed the Goldwing for the little cove from which the cheers had come. By this time the Winooski had got into the smooth water, comparatively, under the lee of the shore. If Commodore Tom Topover wanted to do anything to assist his companions in the other boat, he was as fearful of coming about as he had been in the middle of the lake. As soon as he was under the shelter of the shore, he headed his craft to the south. But he might as well have chased the lightning as the Goldwing.

As the schooner approached the mouth of the cove she was saluted by a volley of noisy cheers. At the same time the bows of two boats came in sight.

"The Chesterfields! We are in for it now!" shouted Ben Ludlow.

CHAPTER XVI.

COMMODORE TOM TOPOVER VISITS THE GOLDWING.

THE cheers the Beech Hill students had heard before had evidently been given by the Chesterfields, and not by a picnic party. Dory was not pleased to see them after the experience of the day before; and their last words had been threats of vengeance. The fresh paint could be seen on the bow of the Dasher where the injury done by the Winooski had been repaired.

The Dasher appeared to be the leading boat, and Mad Twinker had changed from the other barge, and became her coxswain. Wash Barker was not in either craft, and his place in the Racer was filled by Jeff Monroe, who had been active in the affair of the day before.

As soon as the Goldwing appeared off the point, dragging the Gildrock after her, the Chesterfields set up a yell, and it was plain that they identified the Beech Hill students who had so thoroughly humiliated them on the day before. Their lusty

cheers indicated that they were ready to take the vengeance they had promised to obtain. Mad Twinker headed the Dasher for the Goldwing, and the Racer followed.

It seemed to be a holiday at the Chesterfield Collegiate Institute, and the boats' crews had evidently been practising in the cove all the morning. There was a marked improvement in their rowing; they had observed the excellent discipline that prevailed on board of the Winooski, and they had doubtless learned a lesson from what they had seen. After the Chesterfields had given the three cheers, which did not appear to mean anything, unless they were cheering their enemy, there was no whooping or yelling as at the former meeting of the boats.

"Those fellows promised to get even with us when we parted last night," said Dory, after they had observed the movements of the Chesterfields for a few minutes. "I suppose they are ready to begin now."

"If they do begin now they will have a nice time of it," added Matt.

"They will never forgive us for compelling them to give up our clothes before they were ready to do so," continued the skipper. "They are in

better discipline, and behave better this morning than they did yesterday. But they don't seem to know anything at all about a boat, and they think they can overhaul the Goldwing without any difficulty."

"If we run up this cove they will have us on the hips," replied Matt. "There are twenty-six of them, while we are only nine, and if they catch us they can have it all their own way."

"You are right, Matt, and we will not go up the cove. We will go up to Rock Harbor, and we can land the Topovers long before they can pull that distance."

The skipper let off the sheets, and headed the schooner to the south. She was almost before the wind, and the yacht flew like a locomotive on her course. In a few minutes the barges were a mile astern of her. At the mouth of Rock Harbor the wind had a fair sweep, and the sea was almost as rough as it had been in the middle of the lake.

As the Goldwing approached the south side of the inlet, Dory rounded to very carefully, so as not to swamp the Gildrock, though the terrfied Topovers were well shaken up in the manœuvre. Running into the cove just far enough to escape the heaviest of the waves, Dory directed his crew

to haul on the tow-line, and bring the Gildrock within talking distance. Spilling the sail, he allowed the yacht to drift towards the shore.

"We intend to put you on shore here," shouted Dory to the occupants of the Gildrock.

"We can never get home from here," yelled Nim Splugger.

"That 's your look out. You must go ashore, or we will spill you all out into the water by the beach," replied the skipper.

Nim made no reply, for he saw that his captors were in earnest. Dory directed Matt and Oscar to land them three or four at a time in the tender. He explained what he meant to do to the prisoners, and threatened them with a ducking if they resisted. They did not resist, for they felt that the skipper could have his own way with them. Matt landed them in two trips; but Nim Splugger showed fight when they were all on the beach. He attempted to hold on to the tender, but Oscar pitched him out of the boat into the water. The moment he was out of it, Matt shoved it from the shore, and they pulled back to the Goldwing.

It had taken some time to land the Topovers, and by the time the Gildrock had been properly rigged for towing, the two barges of the Chester-

fields, which had followed the schooner, were within a quarter of a mile of the point where the marauders had been put on shore. They made a sweep into the harbor, so as to avoid the rough water.

"Help! help!" yelled the Topovers on the land, when they saw the barges approaching them.

It was not probable that the Chesterfields knew anything about the Topovers; but they could not help seeing that they had been at war with the Beach Hill students, and had been defeated. For this reason, doubtless they sympathized with the ruffians; at any rate they were the enemies of the Beech Hillers, and this fact made them allies.

Dory headed the Goldwing out into the lake. The skipper and the crew watched the movements of the Chesterfields with interest. Possibly the curiosity of the latter was excited by the scene they had witnessed, and they wished to inquire into its meaning. At any rate they pulled for the point where the Topovers had been landed, and the heavy sea prevented them from following the schooner out into the lake.

The Chesterfield barges made a landing farther up the harbor, and three of the marauders were taken into one boat, and four into the other.

They did not remain at the shore a moment after they had picked up their passengers, but followed the yacht by the inside route. The crews of the Dasher and Racer had not seen the capture of the Gildrock with the lasso, and could not have known that the Winooski was making for the New York shore, a mile or more to the north of them. Their passengers told them their story, and no doubt they were anxious to see the battle for the other boat, if not to take a hand in it.

The presence of the Chesterfields had considerably disturbed the arrangements of Dory, who had intended to tackle the marauders in the other barge as soon as he could get rid of the prisoners. It had taken some time to dispose of them, and it was possible that Tom Topover had reached the shore by this time.

"There are the two four-oar boats," said Matt, when they were off the point north of Rock Harbor.

"I am glad to see them, for the coming of the Chesterfields at just this time has mixed things," replied Dory. "We must get rid of the Gildrock, for we can't do anything dragging her after us. We may have a lively time of it yet."

"We can't turn her adrift," added Matt.

"Of course not; but we can put four of our fellows into her and send her home," said Dory.

It was promptly decided to dispose of her in this manner, and Dory selected the three members of the old Goldwing club who were on board, making Thad Glovering the temporary coxswain. Ben Ludlow was added to the number. They objected to leaving the Goldwing just as the battle was coming on.

"There will be no fight if I can avoid one," argued the skipper. "Probably we shall pick up the Winooski in about the same way we did the Gildrock. You need not hurry home, and you can see from the boat all there is to be seen. But we must be in a hurry, for the job must be done before the Chesterfields can get down here to meddle with the affair."

The objections were overcome, and the four oarsmen were to take the Gildrock as soon as the Winooski could be seen. Tom Topover had got his craft into the smooth water, as compared with the open lake, of one of the numerous inlets when the Gildrock was captured. When last seen, his crew were laying on their oars watching the operations of the Goldwing.

The schooner was now approaching this inlet,

and the next minute or two would inform the skipper where she was. About half an hour had elapsed since she lost her consort. Tom Topover might have gone to the aid of the rest of his party, and it was strange that he had not done so. The fact was that he had been jawing with Kidd Digfield more than half the time in regard to what they should do. The crew did not like the idea of going out into the rough water again.

"There 's the Winooski!" shouted Thad Glovering, who was lying on the half deck at the heel of the bowsprit.

Dory instantly threw the schooner up into the wind, and Matt hauled in the Gildrock. Thad and his crew were hurried into her, and the Goldwing filled away again. The Winooski was coming out of the cove, and was just striking into the rough water. Dory gave the tiller to Matt, and went forward himself. He had the lasso ready, but he had his doubts about being able to use it again.

The skipper directed Matt to tack at the proper moment, and the Goldwing rushed on her course in a direction to intercept the Winooski. When Tom Topover saw the schooner approaching, he called Kidd Digfield to the tiller-lines, and,

taking a boathook in his hand, went forward himself.

"That fellow means fight," said Oscar Chester.

"No doubt of it; he means it every time, and for that reason you had better have a boathook in your hand, and be on the forward deck with me," answered Dory, as he picked up his lasso. "Keep her off a little more, if you please, Matt."

The oarsmen of the Winooski showed a disposition to abandon their oars, for a collision seemed to be inevitable to them. Tom stood in the bow of the barge with his boathook poised ready to strike. Dory saw that it would be impossible for him to lasso the boat, and he removed the stove cover from his line.

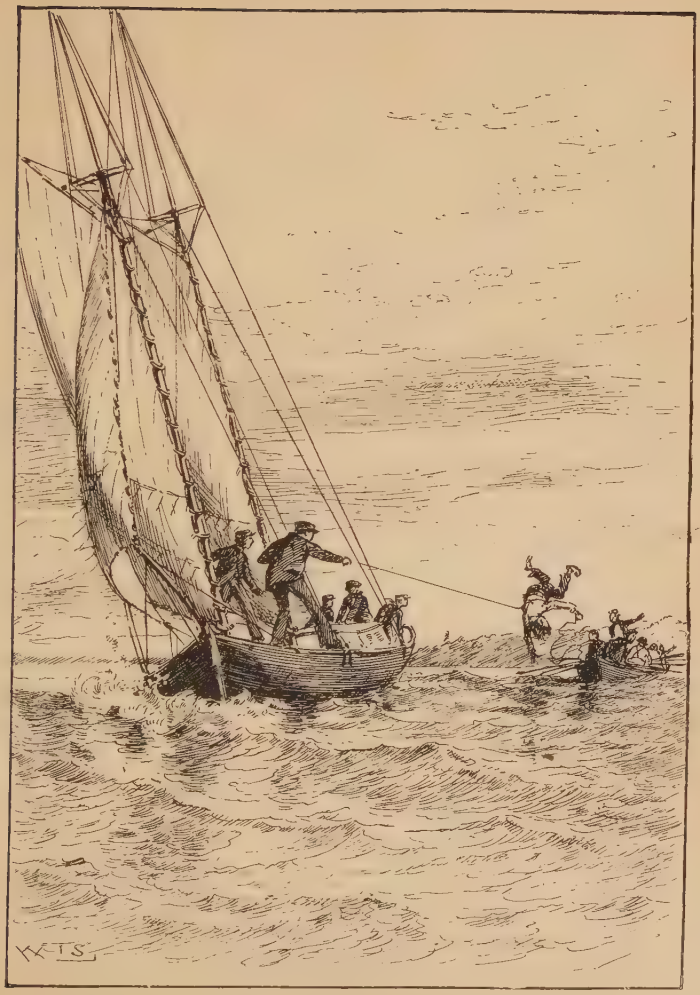
"Luff a little, Matt," called Dory; and the schooner rounded in upon the barge. This movement seemed to be too much for Tom's nerves, and instead of striking with the boathook, he used it to fend off. The moment he bent over, Dory threw his line, not at the stem of the boat, but at the body of the Topover. The noose went over his head, and dropped down upon his shoulders.

"Keep her off!" shouted Dory.

The instant Tom felt the rope, he dropped the boathook and tried to seize hold of the bow of

the barge. The Goldwing fell off, and dashed ahead on her course. Dory let off his line a few feet, and then took a turn with it over a cleat. Tom Topover suddenly felt a smart jerk, which was irresistible, and he was twitched out of the boat as a fish is twitched out of the water.

With Oscar's help, he was dragged alongside, and pulled on board of the yacht. It was found that he had the painter of the Winooski in his hands, which he had grasped in his effort to save himself. Matt had thrown the schooner up into the wind, and the painter was secured and made fast. The Winooski brought up at the stern of the Goldwing, captured by the aid of Tom Topover.



"Tom Topover suddenly felt a smart jerk, which was irresistible. — Page 168.

CHAPTER XVII.

THE CHESTERFIELDS AND THEIR ALLIES RENEW THE BATTLE.

COMMODORE TOPOVER was bewildered by the sharp practice of the skipper of the Goldwing. While he was expecting an assault in another direction, he had been suddenly dragged out of the Winooski into the water, and then on board of the schooner. The painter of the barge was made fast astern, and Dory relieved the prisoner from the noose with which he had been captured.

Kidd Digfield and his companions in the boat seemed to be almost as much astonished as the commodore. They were paralyzed by the unexpected onslaught, and the successor of Tom needed a little time to enable him to determine what to do. Both craft had come to a standstill, the sails of the Goldwing shaking in the wind.

Tom Topover was the first to recover his wits. He had been thoroughly ducked, but he had not been injured in the operation of taking him out of

the Winooski. He looked about him, and it did not require much time to enable him to take in the situation. He was a prisoner in the hands of the students. He was in the same boat with Dory, who had knocked him over with a single blow of his fist; and the remembrance of this fact was the first idea that came to him.

Before Kidd had decided to do anything the wind had driven the barge astern of the schooner, and whirled her about. In this position there were only two things Tom's successor could do; one was to haul the boat alongside the yacht by the painter, board her, and fight it out; and the other was to cut the painter, and thus recover possession of the barge. But Tom Topover considered himself as still the commodore of the fleet, even in the misfortunes which had befallen it, and he proceeded to use his authority.

"Kidd Digfield!" called Tom, as soon as he comprehended the situation. "Haul in on the painter, and fetch her alongside!"

"I think your fellows had better not try to do that," interposed Dory.

"I give you two minutes to put me back in that boat," replied Tom, with a savage glance at the skipper.

"What if I don't do it?" asked Dory, laughing.

"I'll give you the biggest licking you ever had in your life. I'll pound you till you can't see out of your eyes," blustered Tom.

"You needn't wait two minutes before you begin, for I shall not put you into the boat," replied the skipper lightly. "Fill away, Matt, if you please."

Dory had seated himself in the standing-room opposite the place where he had deposited Tom when he hauled him on board. As Matt put the helm up, Tom made a spring at the skipper; but Dory was on his feet in an instant, warded off the blow of the Topover, and hit him square in the face. The yacht heeled over at this moment under the pressure of the wind, and Tom fell back into his seat.

"We won't have any fight in the boat," said Dory, picking up a reef pendant. "We will tie his hands behind him, and keep him quiet till we get rid of him."

"No you won't tie my hands behind me!" yelled Tom, boiling over with wrath.

Oscar Chester sprang upon him, and in spite of his struggles bore him down upon his back. Dory then assisted him, and between them

they had no difficulty in putting the commodore in a position of non-interference.

"The fellows in the boat are hauling in on the painter," said Matt, when Dory and Oscar had disposed of the obstreperous prisoner.

"Let them haul on it," replied the skipper laughing. "They will have a nice time of it. Keep her away a little more, if you please."

Kidd had got hold of the painter, and Pell Sankland was trying to help him; but the former could not haul in enough of the line to afford him a chance to assist. The schooner had got under full headway, and there was considerable strain on the rope. Three of the Topovers had repaired to the bow while the other three were about in the middle of the barge. She was loaded by the head, and as soon as the Goldwing began to force her through the water at her own pace, the craft scooped up about half a barrel of water.

Kidd was sailor enough to see what the matter was, and he hastily retreated to the stern of the boat, followed by his companions. Not more than one of them at a time could get hold of the painter, and there was no danger that the marauders would haul the boat alongside the schooner. But Kidd soon went forward again, after he

had stationed his crew as far aft as he could get them, and began to saw away with his knife at the painter.

Matt let off the sheets, and kept the Goldwing away several points at once. As he did so, Dory slacked off the painter as much as its length would permit. When the schooner straightened the line again, she did it with a violent jerk, at an angle with the length of the barge. The effect was to tip the boat until her gunwale at the bow went under, and she shipped another half barrel of water.

Kidd's nerves were not strong enough to stand this kind of treatment, and he dreaded what might come next. He retreated to the stern; but not till he had found that it would have taken him half an hour at least to saw off the painter with his dull jack-knife. He realized that there was nothing more he could do.

The four-oar boats were now within a short distance of the scene of the strife. The crews had laid upon their oars most of the time, watching the progress of the action. The Winooski had been taken, and the battle was finished. It only remained to dispose of the prisoners. Dory had given the order to head the schooner to the nearest

land. The four-oar boats reached the point off which the yacht had just come up into the wind. Tom was handed into the boat with Mr. Jepson, who was greatly amused at the exploits of the boys. He was put ashore, but the reef pendant was removed from his arms only when he was safe on the beach.

The tender and the other four-oar boat landed the prisoners from the Winooski, who had concluded not to make any resistance. As the boats left the discomfited ruffians on the shore, Tom cast a large stone at one of them, and the rest proceeded to follow his example. But no harm was done, and the boats were soon out of the way of their missiles.

"Homeward bound!" shouted Dory, as soon as he had taken his crew from the tender on board.

Two oarsmen were taken from each of the small boats, for the remaining two could easily pull them across the lake with the wind, and transferred to the Winooski. Thad Glovering in the Gildrock was close by, for his party had no idea of leaving the scene while there was any fun in prospect. The whole squadron, consisting of the Goldwing and the four row-boats, were within talking distance of each other. The battle had

been fought and won, and there was nothing to do but go home. The Gildrock was farthest out in the lake, and she led the way. All the fleet were in the smoother water of the cove.

"The Chesterfields!" shouted Oscar Chester, when the Goldwing was fairly under way. "They are just coming around the point; and they have half the Topovers on board."

"We need not bother our heads any more about the Chesterfields or the Topovers," replied Dory. "We have got our boats, and that was all I wanted."

"All right," added Oscar, as he settled himself in his seat.

But the skipper soon came to the conclusion that it was not all right. The Chesterfield barges had changed their course, and were headed for the four Beech Hill boats which had just started for home. The Dasher and the Racer were fully manned, while the Gildrock and Winooski had each only one-third of a crew.

"That's bad," said Dory, who began to be very anxious for the safety of the recaptured barges.

"I thought it might be," replied Oscar. "But I think we can give them enough of it to satisfy them in a very few minutes."

"Do you mean a fight?" asked the skipper.

"Not a hand-to-hand fight, but if either of those barges attempts to meddle with the Gildrock or the Winooski, I should run her down," answered Oscar, with a good deal of vim in his tones.

"I don't like to do anything of that kind," replied Dory, seriously. "When we smashed the Dasher yesterday, I did not intend to give her such a rap."

"I should say it would be for the Chesterfields and their new allies to elect whether you smash them or not. But they are making for the Gildrock, and of course they can easily take her from the four fellows in charge of her."

"Of course I don't mean to let them take her from our fellows," added Dory. "Keep her away; run for the Gildrock, if you please, Matt."

Thad Glovering pulled the stroke oar of the Gildrock, and he had already discovered the danger that menaced him in the approach of the Chesterfield barges. He was making his crew do their utmost; but the barge had been headed off by the enemy, who were not seen until they came around the point of land.

The improvement in the rowing of the Chesterfields was now very manifest. They had evidently

being practising since they obtained their smashed barge from the builder who had repaired it, and it was just as plain that they had adopted the stroke of the Beech Hill barges.

"The Topovers are helping them," said Oscar, who watched the Dasher with the closest attention.

"I see they are," replied Dory; "and they are making very good headway."

A Topover had been placed on the thwart with each student as far as their number would permit. Mad Twinker was in charge of the head boat, and he was driving his crew to the limit of their power. But the Goldwing, even in the lighter wind near the weather shore, could make two miles to the Dasher's one. Matt was directed to run close to the quarter of the Gildrock; and the schooner came up with her not a moment too soon, for in spite of Thad's best efforts, the Dasher was all ready to pounce upon her intended victim. The Racer had continued on her former course, and was making for the Winooski. It was clear that they intended to capture both boats. When they had done this probably the Chesterfields would be satisfied that they had got even with the Beech-Hillers for the humiliation of the day before.

The Goldwing was almost before the wind, and she was surging down upon the Dasher with tremendous speed and power. The Chesterfields did not look behind them, and they could not have failed to take notice of the Winooski's drill on the preceding day. Mad Twinker had no little nerve, but he was appalled at the rushing, surging, roaring approach of the Goldwing.

"Sheer off, or I shall run into you!" shouted Dory, on the half deck of the schooner. "If you meddle with the Gildrock I'll smash your boat."

Mad could stand it no longer, and he let go one tiller line, and pulled on the other with all his might. The Dasher whirled around in obedience to her helm. The Goldwing came about; Dory hove his long line to the Gildrock, and she was dragged out into the rough sea, out of the way of her assailant. But the Winooski was by this time in the same peril, and the schooner hastened to her assistance.

CHAPTER XVIII.

DORY DORNWOOD DEALS IN MORAL COURAGE.

WASH BARKER, the former coxswain of the Racer, had resigned his office partly because he declined to adopt a policy as vigorous as his followers desired. Probably his successor possessed the qualities which Wash lacked. Jeff Monroe had seen the Dasher cheated out of her prey, as he regarded it, and he knew he was sure to be condemned by his associates if he failed to capture the Winooski.

Nim Splugger was in the barge with him, and this worthy assured the coxswain that Dory would not dare to run into him. It was all bully in his opinion. The crew expressed their disapprobation in very emphatic terms at the weakness of Mad Twinker in allowing himself to be cheated out of his game.

The Goldwing had been obliged to beat up to the position of the Winooski, and her approach was not so appalling as when she neared the Dasher. But she had gone well to windward so

as to get a good full, and she was making at least eight knots when she came within hailing distance of the Racer. Dory gave the same warning as before, and repeated it several times. But the Racer did not budge. Her crew were all ready to leap into the Winooski.

Dory had fully made up his mind to smash the Racer. A collision would certainly accomplish her destruction. It was probable that the Goldwing would bear the barge under her bottom, and thus go over her. The coxswain and all his crew were very ignorant in regard to the management of a boat, and could not realize the peril to which they were exposing themselves.

Probably most of the crew of the Racer could not swim, and, even if they could, some of them might be seriously injured if the schooner went over the barge. There was more than a possibility that one or more lives might be lost in the encounter. The skipper of the Goldwing shuddered when he thought of such a catastrophe. At the worst, the Chesterfields could only capture the Winooski; and that would not kill or hurt anyone. It was not a case of life and death; in fact it was nothing more than a frolic on the part of the Chesterfields.

In another instant the Goldwing would strike the Racer, and the calamity the skipper dreaded must come, either in whole or in part. If he "backed down," Oscar would laugh at him, and his other companions would rail at him for timidity. But Dory had the moral courage to brave any censure or sarcasm rather than expose the lives of the enemy.

"Down with the helm, Matt!" shouted he with startling energy.

Matt promptly obeyed, and the sails of the schooner shook in the wind.

"What did you do that for, Dory?" demanded Oscar Chester, utterly disgusted at the backing down of the skipper.

But there was no time to answer the question. Instead of striking the Racer, the Goldwing was struck by the barge on her broadside. But the blow came at an angle of about forty-five degrees, and the stem slid off by the stern. Still it was a hard rap, and the yacht shook under its force. Doubtless her side was dented and scraped, but she sustained no injury of any consequence.

"Keep your places, fellows!" yelled Jeff Monroe, as the rowers began to stand up and think how they should save themselves, for they

thought the barge was smashed in the collision. "We are all right! Keep your places!"

The Racer was not injured, but she was thrown from her course, and brought up with her stern alongside the schooner. Two of her spoon oars were broken, and two more of them lost overboard, for all the starboard oars had been swept from the rowlocks by the contact with the yacht. The crew were in utter confusion, for their discipline was not proof against such a scene as that which had just transpired.

"Do you mean to drown us all?" demanded Jeff. "You have made a pretty mess of it."

"You act as though you intended to drown yourself and your crew," replied Dory, as he directed Matt to fill away again.

"We shall get even with you yet!" retorted Jeff angrily.

The barge had come about, so that she was now in the trough of the sea, though the waves were not heavy; but the motion served to increase the confusion on board of her. The crew obeyed the order of the coxswain to keep their seats for the simple reason that they could not stand up in the rolling craft. In a few minutes Jeff had brought something like order out of the snarl.

The discipline on board proved to be not more than skin deep, for about every one of the crew had something to say, and a general jaw ensued. Some of them blamed and scolded their coxswain, and hard words were used before the Goldwing was out of hearing distance. The first business, when the grumblers had "talked out," was to pick up the oars and the pieces; and, by the time this was done, the Winooski was out in the heaviest of the sea. The Goldwing stood off and on between the fleet she was protecting and the barges of the Chesterfields. The Dasher had gone to the assistance of the Racer.

"What under the canopy made you back down, Dory?" asked Oscar, in a more gentlemanly tone than he had used before when he alluded to the subject.

"If one of those fellows had been drowned, I should not have forgiven myself to my dying day," replied Dory.

"There was no danger of drowning any of them," added Oscar.

"I don't believe many of them can swim, and I think the Goldwing would have gone over the Racer. Some of them might have been disabled, so that they could not have swum, even if they had

known how. In a word my conscience would not let me run into the barge when it came to the scratch. Though we may look upon the taking of any of our boats as a serious thing, after all it was only a frolic on the part of the Topovers and the Chesterfields. I could not risk killing or drowning a single one of them. That 's the whole of it."

"It would not have been your fault if one of them had been drowned, or even half a dozen of them," replied Oscar.

"I think it would have been. If no one had been drowned or hurt in the collision, some people would have thought we were smart. If a single life had been lost, they would have said that the affair was nothing but a boys' frolic, and that we had no right to proceed to such an extreme measure as running into the barge half a mile from the shore," argued Dory. "Those fellows are not used to the water, and half a dozen of them might have been drowned. I am perfectly satisfied now with what I did."

"Though I was as much carried away by the excitement of the moment as any of you, and was in favor of running into the barge, I think you did just right, Dory," added Matt Randolph, convinced by the skipper's logic.

"On cool second thought, I am willing to admit that Dory was right," said Oscar, as he glanced at the Chesterfield fleet. "We saved the Winooski after all, and that was what we were fighting for."

"Those fellows have had enough of it for the present," chuckled Matt. "They are pulling for the point where we landed Tom Topover, and very likely they are going to pick him up."

"But we have no further business over here, and we will go home," said Dory; and Matt headed the Goldwing for the mouth of the river.

"The Chesterfields will never be content to leave things as they are now," suggested Oscar. "I know if I were one of them I should try to get even with you."

"By and by they will learn to row a boat in a sea, and know something about handling their craft; and then they will make a visit to Beech Hill," added Matt.

"I think we shall be able to take care of ourselves," replied Dory, shrugging his shoulders like a Frenchman.

"It looks as though they had formed an alliance with the Topovers, and I am confident that Tom will never be satisfied until he has had a fight with Dory and been thoroughly whipped," prophesied

Oscar, who was sure that the skipper could do it "every time."

With the fresh breeze the four row-boats made good time across the lake, and were going into the river when the Goldwing dashed past them. This time Matt brought the schooner up to the wharf without getting aground; but at the V point, Dory gave him the bearings by which he steered through this bad place with the current, and was confident that his friend would never stick there again when he had any kind of fair play.

Captain Gildrock, with the instructors, were on the wharf when the Goldwing arrived. The news of the taking of the boats by the Topovers had been circulated in the town, and the principal was somewhat disturbed by the occurrence, not especially by the stealing of the barges, but more by his fears of what might result from a battle between the students and the marauders. When Bates, who had learned the particulars from Mr. Jepson, told him that Dory Dornwood was in command of the expedition which had gone out to recover the boats, he was somewhat relieved of his anxiety; for he had a great deal of confidence in the skipper's judgment and discretion, though

there was no knowing what boys would do when they were excited.

"Where are the boats, Dornwood?" asked Captain Gildrock, as soon as the party landed.

"They are coming up the river, sir," replied Dory.

"And where are Tom Topover and his gang?"

"We left them on the other side of the lake." Dory proceeded, without any further questions, to make his report of the taking of the barges, and the means by which he had recovered possession of them. He stated the facts just as they were, without flourish or ornament, even to the intention they had of smashing the Racer by running into her.

"I am heartily rejoiced that you did not do anything of that kind!" exclaimed Captain Gildrock, with a considerable show of emotion for him. "Nothing could have justified you in resorting to such a desperate measure, unless it was to save life or honor. If one of those boys had lost his life, it would have been the ruin of the Beech Hill Industrial School; for popular opinion would have set against us, and we could not have stemmed the tide."

"I was terribly excited when I thought of doing it," pleaded Dory.

"You have done well, my lad; you have behaved splendidly; but the biggest and best thing you have done was to renounce a bad intention," added the principal, earnestly. "I cannot look upon this affair as anything more than a boys' racket, and I am exceedingly thankful that no catastrophe has come out of it."

"Should you excuse the Topovers for stealing the boat on the ground that it was nothing but a racket, a frolic, something done for the fun of it?" asked Matt Randolph very seriously.

"By no means; I would prosecute them for stealing the boats if it were likely to result in anything but a fine which their poor parents would have to pay," replied the captain. "No one should do wrong for the fun of it; but there is such a thing as exaggerating a serious matter beyond its proper proportions.

The arrival of the boats ended the conversation. Dinner was ready, and everything proceeded at the institution in its usual order. The rebels each dined alone in his room.

CHAPTER XIX.

SOMETHING MORE ABOUT THE BEECH HILL REBELLION.

AFTER dinner the students resumed their study of the plans for the boat-house and wharf. Some of them went over to the grove in the afternoon, but nothing more was seen of the Topovers that day. The lake was too rough to admit of the Chesterfields bringing them over in their barges. Probably the young gentlemen of the Collegiate Institute got enough of them before night.

The next morning the lake was smooth, and the two barges brought the marauders to the head of Porter's Bay. Some of the Beech Hill students were in the grove at the time, for it was a quiet place to work on the plans. Bolly Millweed spent the whole day there, seated on the shore where he could see the whole water front of the opposite side of the lake.

The other students were not so deeply absorbed in their study of architecture, and they observed

with interest the landing of the Topovers. The Chesterfields appeared to be on excellent terms with their allies, and quite a conference took place between them on the shore. Doubtless the Beech Hill students were the subjects of the conversation, for the Topovers frequently pointed in the direction of the estate, and seemed to be explaining the nature of the locality to their patrons.

Mad Twinker and Jeff Monroe walked up the hill to the centre of the grove, where they could see Beech Hill Lake and the school buildings. But the visitors soon returned to the other side of the lake, and the Topovers went to their homes. Most of the latter had been truants from school, and very likely many of them were punished for their misconduct either by their parents or their teachers.

Of course a great deal was said by the students at liberty about the rebels; but those who wore the uniform were emphatic in their condemnation of those who refused to put it on. The rebels were still required to stay in their rooms, and their meals were sent in to them. Each of them had been fitted by the tailor, and had taken his uniform to his own apartment.

The principal had sent word to them that, when

they desired to return to their duties, all they had to do was to put on the uniform and take their places with their schoolmates. Although they were forbidden to communicate with one another or with the other members of the school, it is probable that each one knew what the others were doing.

The rebellion had not worked as they intended and expected. Lew Shoreham had been appointed the orator of the malcontents, and the battle was to be fought out with words in the schoolroom. This was not the principal's way of dealing with such cases. He gave the "jingo" element no chance at all.

On one of the first days of the school he detected a couple of students in the act of engaging in a fight. Investigation showed that there was no grievance between the parties, and the battle was to see which was "the best man." He locked them both up in the machine shop, and gave them two hours to ascertain which was the best man. With no one to witness the encounter they did not care to fight, and came out good friends.

The rebels could not help feeling that their enterprise had already "come to grief." Lew Shoreham's argument had been prepared, but it

was unspoken, and was likely to remain so while its author pined in the solitude of his chamber. The malcontents could not confer together, for Bates would not allow any two of them to meet in the halls. Bart Cornwall tried to talk with Lick Milton in the next room, but the remorseless jailer threatened to put him in the black hole if he said another word; and he did not.

Each rebel, therefore, was compelled to think and act for himself. He could not lean on his leader or his companions. Life Windham was one of the most restless under his confinement. He liked to know what was going on, and he found himself shut out from the world and all that was in it. The principal had begun his announcement of the prizes for the best plans when the conspiracy broke out. Life concluded that he must have deferred the business till the rebellion was disposed of, and he wondered what he had said to the rest of the students about the refusal to wear the uniform.

Life fretted and worried over his situation until after dinner of the second day. Then he went over the whole subject of the uniform in his own mind. He thought he was abused and persecuted, but he could stand it no longer. Impulsively he put on

the uniform which hung at the head of his bed. It was a good fit and he thought he looked well in it. He tried on the cap with the monogram in front. It was neat and plain, and the only objection he had to it was that it was part of the uniform.

He was so anxious to learn what was going on at the school, and what the principal had said about the rebels when they left, that he went out into the hall. Bates was on his feet the instant the door was opened. The old man smiled when he saw that Windham wore the uniform, and as the ex-rebel passed him, he saluted him as politely as though he had never been his prisoner.

The dormitory was located near the rocks, at a little distance from the lake, which could not be seen from its windows. Life Windham knew nothing at all about the stealing of the boats by the Topovers, and the lively scenes on the lake in the forenoon. It was after one o'clock, and the students ought to be in the shops. He went there, but they were deserted.

Life concluded that the principal had given the rest of the students a vacation as a reward of merit for not joining the rebellion. He walked to the lake. Seated in one of the four-oar boats, busily

engaged in drawing on a large sheet of brown paper, he found Dory. As stroke-oarsman the ex-rebel sat next to the coxswain in the Winooski, and he was more intimate with him than with any other student. When Dory saw him getting into the boat, he rolled up his drawings, and put a rubber band around them.

"Hallo, Dory!" said Life, as he walked aft in the boat.

"Glad to see you, Life," replied the coxswain. "You look well in the new uniform."

"I could n't stay in my room any longer, but I have not changed my opinion in regard to making us wear a uniform," added Life, who could not even now back wholly down. "But what are you doing? Why are the fellows not in the shops?"

"One question at a time. I am trying to make a plan for a boat-house. The principal gave the students three days to get up their plans, and they are to be handed in day after to-morrow morning."

"Did the principal offer the prizes?" asked Life, astonished that it had been done in the absence of the rebels.

"Of course he did; he had opened the subject before you left the schoolroom."

"But I thought he would put it off after one third of the whole school had left."

"He don't do things in that way," added Dory.

"But what are the conditions? Perhaps I am not too late, for I had some ideas about a plan."

"We are not allowed to speak to anyone about the plans," answered Dory. "Every fellow is put on his honor to say nothing to anyone about them."

"Then the eight fellows that object to being dressed like monkeys are to be shut out from the competition!" exclaimed Life indignantly. "That is about as unfair as anything can be."

"You had the same chance that the rest of us had, and you chose to stay in your room rather than hear the terms on which the prizes were to be given."

"We were standing up for a principle."

"Whew!" whistled Dory laughing. "The principle that you won't wear the colors of the Beech Hill Industrial School."

"The principle that we won't be punished for the sins of others," retorted Life smartly.

"You are wrong on the fact, as I have shown you before."

"It's no use to argue the point with you: if the

principal had only been fair enough to hear what Lew Shoreham had to say, we should have been fully justified."

"He never argues the point with those who refuse to obey."

"No matter. Have you heard anything more from the Chesterfields?"

"We had a smart brush with them this forenoon," answered the coxswain; and he proceeded to tell the whole story of the encounter with the Topovers and their allies.

Life Windham listened with breathless interest. It was the liveliest affair of the whole season, and he had been shut up in his room. He was vexed and indignant that he had not been permitted to take a hand in the stirring enterprise. When he had finished the narrative Dory wanted to work on his plan, and Life left him. He found all the other students at liberty were engaged in the same way.

Life had to spend the afternoon by himself. Late in the day he saw Bob Swanton come out of the dormitory with the uniform on. He was just beginning to ask himself if he had not been a traitor to the "cause," and to the rebels engaged in it. He was glad to see one of them. Life was

pleased to have a companion, and they talked over the situation.

"Not the least notice seems to have been taken of us," said Swanton.

"Not the slightest," added Life. "Why, the principal did not even say a single word about us after we left the schoolroom, and has not mentioned us in any way."

"He is the oddest principal I ever heard of. I suppose he will let the fellows stay in their rooms all winter," continued Bob Swanton, who had pluck enough to fight, but not enough to be ignored.

"I have come to the conclusion that Lew Shoreham ought to have made his argument when the order to put on the uniform was given," said Life, rather sheepishly; "for the principal was certainly ready to hear all the fellows had to say at that time. Lew didn't say a word about punishing us for the sins of others then."

"I asked him why he did not, and he said he had not thought of it at that time."

But the supper-bell ended the discussion, and the two ex-rebels went to the house with the other students. Captain Gildrock saw them, but he made no remark of any kind about their return to

duty, or the fact that they wore the uniform. The rest of the students seemed to be glad to see them, but they would not allude to the rebellion.

The next morning Harry Franklin and Phil Gawner appeared in uniform; and at night only Lew Shoreham remained a prisoner. The next morning the plans for the prizes were to be handed in, and when the school had assembled, quite a number of the students had rolls of drawings in their hands; but many of them had nothing to show for their three days' study of architecture and engineering.

At the appointed hour the principal came in and took his place on the platform. A moment later Lew Shoreham entered in full uniform, with the cap in his hand.

"May I be permitted to make an explanation?" said the last of the rebels, rising in his seat.

"In my private office at the close of the school," replied Captain Gildrock.

That was not what the chief rebel wanted.

CHAPTER XX.

THE VISITING COMMITTEE AT BEECH HILL.

I wish to protest ——"

"Take your seat, Shoreham!" interposed the principal very sternly.

The last of the rebels obeyed, and did not appear to be at all angry or indignant. Possibly he was about to protest in order to save appearances. Most of the students smiled as they saw the young orator deprived of his only chance to plead the cause to which he had been a martyr for the last three days.

Captain Gildrock repeated the terms on which the prizes were to be given, so that there should be no mistake in regard to them. The ex-rebels listened, though the subject had little interest in the competition, for they had ruled themselves out of it. Not the remotest allusion was made to their misconduct.

"I have invited three gentlemen to spend a few days with me," continued the principal. "One of

them is an architect, another is a civil engineer, and the third is a salesman in a hardware store in Boston. They will form the committee to award the prizes for the best plans. They will arrive this forenoon, and as soon as they come to a decision, I shall inform you of the result."

The captain then instructed Mr. Darlingby to receive the plans and make sure that there was no distinguishing mark on any of them except the character on the envelope containing the name of the competitor. He was to retain the envelopes and lock them up in the safe. As a further precaution he was required to paste a piece of paper over the character on the plans so that even this could not be seen by the committee.

The principal then left the schoolroom, declining even to see the rolls of drawings. As soon as he had gone, sixteen plans were presented. This was a greater number than the principal had expected. Mr. Darlingby carried out the instructions given him, and sent the drawings to the mansion house. The studies of the classes proceeded as usual during the forenoon.

The three gentlemen who were expected appeared at dinner, and the students regarded them with interest. In the afternoon they visited the

shops and inspected the tools and machinery. The first class were now at work as carpenters, and the second as machinists.

"As soon as we have decided on the plans, all the students will be carpenters for a time," said Captain Gildrock, who explained his plans with considerable enthusiasm to the visitors. "I intend that the students shall do almost all the work of building the new boat-house, though I shall have laborers enough to do the lifting and digging."

"You have excellent tools and machinery in every department," suggested Mr. Plint, the architect.

"Good tools do a great deal towards making good workmen," replied the principal. "Every student has been instructed how to keep his tools in good order. Of course there is a difference in them so far as skill is concerned, but everyone can grind a chisel or plane-iron."

"One of the boys invented a piece of apparatus by which any desired bevel can be given to a tool at the grindstone," interposed Mr. Jepson, as he exhibited the machine to the visitors.

It was simply an iron plate, taken from a useless invention, and set at the edge of the stone. It

could be adjusted at any angle for a long or a short bevel. Some of the work done with it was shown, and the guests said it was as true as could be done by the manufacturers. On a bench near the grindstone, which was turned by steam, were oil-stones of two kinds, one rather coarse and the other fine. Lew Shoreham was putting a chisel in order at one of them.

"That is the inventor of the grinding apparatus," said Mr. Jepson.

Shoreham was a lion for the time, and the visitors were introduced to him. He was highly commended for his inventive power. When he had finished whetting the chisel, Mr. Plint examined it, and declared that it was sharp enough to shave with.

Thus far about all the work done by the students had been in fitting up the shops, though each one had made a dressing-case for his room. In the middle and at each end of the carpenters' shop was a case containing forty-nine small drawers, which had been made by Corny Minkfield, Steve Baxter and Ned Bellows, who were reckoned the best workmen in the second class. They were natural mechanics, though they were rather low in scholarship.

"But do they like to work?" asked Mr. Bridges, the civil engineer.

"They would work here from the time they get out of bed in the morning till dark if we would let them," replied Mr. Brookbine. "I don't know that they are particularly fond of the hard work of sawing and planing, though we do most of it by machinery. But in every job there is a great deal of variety; and this makes even the hard work easy. The boys are all the time studying out how to do it, and this affords them a sort of excitement which amounts to fascination."

"What are those trap-doors at the end of each bench?" asked Mr. Ritchie, the salesman.

"Those are a device of one of the boys," replied the master carpenter. "Captain Gildrock rightly insists that the shops shall be kept as neat as the parlor in the house. Formerly the shavings had to be taken up and put into barrels, which were conveyed to the engine-room, under the machine shop."

Mr. Brookbine pulled a small cord under the bench, which opened one of the trap-doors. Slipping the cord into a slot, a knot held the cover in place. Each student was provided with a long and a short handled dust brush, which were

hung up at each end of the bench. He was required frequently to sweep his chips and shavings down the trap.

"Phil Gawner is the author of this device. He has also projected a wooden railroad, by which the shavings can be received into cars under the traps, and conveyed to the furnace-room. The boys are not mechanics enough yet to build the cars; but probably it will be done one of these days."

"What sort of a machine is that?" asked Mr. Plint, pointing to a piece of apparatus that hung upon the wall.

It was a square piece of plank eighteen inches across, in which a quarter of a circle had been cut out at one corner. In the middle of it another square piece of plank had been fastened, and on each side of the quarter circle were two wooden screws.

"That is an invention of Jim Alburgh. I call it an invention, though others may have used the same thing, for it is original with this student," replied Mr. Brookbine. "You see the frames containing the printed regulations of the school. The boys made these frames. They had a great deal of difficulty in holding the parts securely while they nailed the corners. Jim devised

this apparatus. The two parts, when mitred, are screwed up in this thing, and held together as firmly as though they had grown into the position."

Some pieces of plain turning were shown to the visitors, but not much time had been devoted to the lathes. In this part of the shop were observed the same tendency to "improve things," and the same skill in remedying defects, inventing apparatus to secure facility or correctness in the work. One fellow had devised a plan to prevent a band from running off the speed-wheels; another had arranged a shelf to hold his tools while he was at work; and a third had adjusted a marker on his rest with which he could lay out the distances on his wood.

"The boys seem to be as much interested as though they were engaged in a game of base ball," said Mr. Bridges.

"They would leave a game of base ball any time to work in the shops," replied Captain Gildrock. "Of course Mr. Brookbine and Mr. Jepson have to adapt the work to the students, and see that there is variety enough in it to keep their minds active. If they set them to sawing, planing, filing or boring iron, simply to learn how to do these things, they would soon get disgusted.

They want to 'make something;' and while they are doing so, they don't mind the strain on the bones and muscles. I don't know how they will take to framing the new building, for that is hard labor, and spruce timber is hard to work."

"With good tools in good order they will do very well; and building the house is a big thing for boys to do," added the master carpenter. "By the way, we have no framing tools."

"You are not a drummer, Mr. Ritchie, but I dare say you will take an order when you return," added the principal, laughing.

"Always ready to sell goods," replied the salesman. "I have no samples of the goods you want," added Mr. Ritchie.

"All our tools and machinery came from Wilkinson's, and I am willing to buy without seeing a sample," continued Captain Gildrock.

The shipmaster had made the acquaintance of John Ritchie while purchasing the tools and machinery for the school. He was a model salesman, and the captain had taken a great fancy to him. He had invited him to spend his vacation at Beech Hill, and as an excuse for paying his travelling expenses, he had invited him to serve on the committee to award the prizes.

"What tools do we need, Mr. Brookbine?" asked the principal. "I thought you gave me lists of all that would be wanted."

"When I did so I had no idea that the boys would ever have occasion to frame a building. The first things we want are a steel square and compasses for each student, for I intend to have the boys lay out the work as well as do it; that is, after the general plan for framing the house is arranged. Everyone must learn to use the square and compass."

"Square and compasses," added the captain, laughing. "We use a compass on board of a vessel."

"You are right, captain; the dividers are properly compasses, and they ought always to be called so to distinguish them from the marine instrument, but many carpenters use the word in the singular form. The square and compasses, with a set of framing chisels and a few more heavy mallets than we have, will be all the different articles we shall need."

Captain Gildrock gave the order at once, and Mr. Ritchie wrote it down. After a survey of the schoolroom and the dormitory, the visitors were taken to the lake. Bates pulled them over to the

grove and they carefully looked over the shores on both sides in preparation for the examination of the plans. The next morning they engaged in their work upon the plans submitted. The master carpenter and the master machinist were added to the committee at the request of the visitors. The following day was Saturday, and a grand excursion around Lake Champlain was arranged for the guests.

After breakfast the students put on their steamer uniform, and took their stations on board of the Sylph. The visitors were greatly amused as well as delighted when they saw the students in their places on board. The attentive scholar of the schoolroom, the inventor in the workshops had become a cook, a waiter, a pilot, or a deck hand. Mr. Plint insisted that it was all decidedly funny.

They looked with wonder at Oscar Chester at the wheel in the pilot-house, where he had the helm alone. But he knew what he was about, though Dory Dornwood, the first pilot, kept a close watch upon the movements of the steam yacht. The dinner was not only elaborate but excellent; and the visitors returned to Beech Hill deeply impressed by what they had seen.

On Monday morning they were ready to report on the plans.

CHAPTER XXI.

THE ORATOR OF THE REBELS OBTAINS A HEARING.

THE students gathered in the schoolroom as usual on Monday morning. There was no little excitement, even among those who had no interest in the prizes, for it had been announced that the awards would be made at this time. So closely had every student who had any ideas in regard to the plan or location kept them to himself, that no one could even make a guess as to who would get the prizes.

"We have found some merit in all the plans," said Mr. Plint, who was the chairman of the committee. "We agreed that it was a tremendous undertaking for young gentlemen under twenty to plan a wharf and a building, and it was hardly to be expected that a single one of their efforts would be acceptable. But all have had the benefit of the thought and study the subject has given them, and the unsuccessful ones may reap a harvest in the future from it of a thousandfold more value than the prizes.

"We are unanimous in our conclusion, and we come to the award without any doubt or hesitation. It is no discredit to the students to say that the plans to which the prizes were awarded were the only ones which were practicable. In some the building was twice as large as necessary, with a large portion of the space within it wasted. In others it would cost a million dollars to carry out the ideas of the competitor.

"In one it would be impossible for the steamer to come up to the wharf without backing on a stern-line. One did not put a single window in his building, even for the hall; and another supplied no stairs by which the second story could be reached. In one instance, the dressing-rooms could only be reached by going up stairs, and passing through the hall.

"But some of the plans which contain the greatest defects also include some of the most meritorious features. The successful plan for the boat-house and the one for the wharf and location are admirably fitted to each other. The committee visited the locality, and carefully examined the natural structure of the land and the depth of water. The fortunate competitor has taken advantage of the formation of the shore for the

wharf and the docks for the row-boats; but it would be impossible to erect the buildings according to most of the plans."

"Was the plan for the building that fitted this location best selected for that reason, sir?" asked Ben Ludlow.

"A pertinent question, young gentleman," replied Mr. Plint, with a smile. "The committee awarded the prize for the building before they considered or even looked at the plans for the wharf and location. We decided upon the merits of the plan for the boat-house so that its fitness for the locality might not influence us. I need not say anything more, except to repeat that all the plans, in spite of the defects that may be found in them, contain much that is creditable to amateur architects and engineers."

As he finished his remarks, he handed two rolls of drawings to the principal. The students gazed at them eagerly, but there was nothing about them which enabled any student to determine to whom they belonged. A kind of buff wrapping-paper was provided for rough drawings, and, as all the scholars had used this article, the rolls were just alike.

"I am satisfied that the committee have acted

with the utmost fairness, though I have not been present at any of their sessions," said Captain Gildrock.

"I wish to say for myself and Mr. Jepson, that we have not the remotest suspicion to whom the prizes have been awarded," interposed Mr. Brookbine. "The handwriting of the boys is so nearly the same thing that it gave us no clew to the winner."

"If any student has any objections to make to the fairness of this transaction, now is the time, and the only time there will be, to make them," added the principal.

At this remark Lew Shoreham rose from his seat, and the boys wondered if he intended to deliver the oration he had prepared as a protest against a uniform.

"I am sorry to feel obliged to object — not, I beg to say, in the most emphatic manner, — to the fairness of the committee," the last of the rebels began, pluming himself for a speech which promised, as usual, to be of considerable length. "Our honored principal was kind enough to say the 'fairness of this transaction,' from which I infer that the whole subject of the plans and prizes is included."

"Certainly," added the principal rather brusquely, as though he understood what was coming. "But you must confine yourself to the subject now before the school."

"That is my intention," replied Shoreham, with a polite bow to the head of the school. "The objection I feel compelled to make is, that nearly one third of the school — eight out of twenty-six, to speak with mathematical accuracy — have been shut out from the competition."

Mr. Bridges had to stuff half his pocket handkerchief into his mouth to ward off an outburst of laughter at the high-flown speech of the speaker, and the other members of the committee were equally amused, though their risibles were more controllable.

"Eight of the students of this useful institution, some of whom had ideas in the sublime science of architecture, and in the equally important subject of civil engineering, were prevented from embodying those ideas in the form of plans, and presenting them for consideration in this competition," Shoreham proceeded, evidently believing that he had produced a sensation in the committee.

"What prevented them from competing for the prizes, Shoreham?" asked the matter-of-fact prin-

cipal, who had not a great stock of patience under the infliction of a high-flown speech.

"The eight students alluded to unfortunately differed from the authority of the school, and from a majority of their fellow-students, in a matter relating to the discipline of the institution. They were sentenced to confinement in their several apartments. While they were thus compulsorily absent from the usual assemblage of the students" —

Mr. Bridges could stand it no longer; the handkerchief failed as a preventive, and he had to indulge in a fit of audible laughter, in which the other members of the committee politely joined.

"This was a solemn and important matter to the students alluded to," continued Shoreham, with the utmost seriousness, for he could not tell, for the life of him, what the fat civil engineer was laughing at. "It involved their rights and privileges. While they were thus excluded, by authority which they were too loyal to disregard" —

"And Bates was too vigilant to permit them to disregard," the principal, now as much amused as his guests, interjected.

"Without introducing any unnecessary details,

I need only say that the eight students, whose deportment was usually unobjectionable, and who habitually discharged with fidelity their obligations to the institution and its respected founder, were excluded, by authority, from the particular assemblage of the pupils in which the prizes were offered for the plan and location. The other students were forbidden to speak with any persons in regard to the plans, and the eight were unable to obtain the terms of the offer, and were thus circumstantially shut out from the competition. For myself and the other students who were thus unjustly excluded, I wish to protest against the award about to be made, and to suggest that the offer be repeated, so that the eight may have the opportunity to stand on the same footing as their fellow-students."

"As I am charged with injustice and unfairness, I should like to have the committee settle this question," said Captain Gildrock, who appeared to be in an unusual mood for him, for he was laughing as merrily as the stout civil engineer. "I will agree to abide by your decision, gentlemen."

"For myself and my associates whom I represent, I assent to this magnanimous proposition," replied Shoreham.

From motives of delicacy the committee objected to deciding the matter, but, at the request of the captain, they finally consented, regarding the whole business as a farce rather than a matter of serious importance. The students were rather impatient, for they wanted to know to whom the prizes had been awarded, and most of the rebels were satisfied that they had been in the wrong.

Shoreham had already stated the question, and the chairman, declaring that they understood it perfectly, declined to allow Shoreham to make another speech.

"You were shut up in your room, and could not find out the terms of the offer; that's the whole thing in a nutshell, isn't it?" said Mr. Bridges, turning to the orator of the rebels.

"The question you ask, sir, naturally and logically involves the reason why we were confined to our apartments," replied Shoreham, — and this seemed to be the place where the oration could be properly introduced.

"Dry up, Lew!" called Windham, in a whisper loud enough to be heard by all in the room, calling forth a burst of laughter.

"If we were properly and justly incarcerated" — Mr. Bridges exploded again.

"Never mind that, Mr. Shoreham," interposed the chairman of the committee.

> "No rogue e'er felt the halter draw
> With good opinion of the law,"

chuckled the civil engineer.

"We were acting on principle, sir," said Shoreham warmly.

"Exactly so!" exclaimed the jolly Mr. Bridges. "Let me tell you of a terrible outrage inflicted on one of my neighbors in a small town in another State. His name was on the voting-list, but when the day of election came, he was not allowed to vote. He was robbed of the dearest right of an American citizen. He was ruthlessly debarred from constitutionally expressing his choice for a governor of the State. Was n't it awful?"

"I should say that it was an outrage, as you called it in the beginning. But why was he debarred from his right?" asked the orator.

"He was shut up in the house of correction," laughed the fat committee-man.

"Oh, for some crime!" exclaimed the representative of the rebels.

"That depends upon how you look at it. He did not regard that for which he was shut up as a crime; in fact, he was acting on principle,"

chuckled the jolly disputant. "He claimed that it was right to sell liquor, though the law of the State made it a crime. At any rate, his business was such that he could not leave, even to vote. His case was just like yours, only a great deal worse, Mr. Shoreham."

The students indulged in a round of hearty applause, and the orator found it utterly impossible to meet the argument contained in this parallel case. He subsided. Captain Gildrock was satisfied with the decision of the committee, and so were all the students, with the possible exception of Shoreham. The papers that covered the characters on the two rolls were removed by Mr. Darlingby, and the same one appeared on both of them.

"Both prizes have been awarded to the same student, I see," said the principal, while the instructor went for the envelopes.

The character was the Greek letter Beta, and the two envelopes, thus indorsed, were handed to the principal. There was intense excitement when he opened them.

"Bolingbroke Millweed," Captain Gildrock read from the enclosures of both, and a round of applause followed.

CHAPTER XXII.

BOLLY EXPLAINS HIS PLANS FOR THE BOAT-HOUSE AND WHARF.

BOLINGBROKE MILLWEED was a good scholar and a fair mechanic, but both instructors and students were astonished when both prizes were awarded to him. He had formerly been a "swell," but he had entirely recovered from the malady which made him such. Only a few weeks before he was too proud to work with his hands.

His pride, or rather vanity, had kept down his manhood, and made of him what the genuine boy called a "donkey." His father had become the "head of the family," at home, and introduced a new order of things. The two sons were in the Beech Hill School, and the two girls were not only earning their own living, but were doing a great deal towards the support of the family.

The new order of things had placed Bolly, as everyone called him, on his own proper level. It had developed faculties which had been dor-

mant, and made him a useful as well as a sensible young man. The result of the competition proved that he had talent of a high order, and that the industrial school was bringing it out.

Bolly was fairly popular among his associates, though there was nothing magnetic about him. He was not likely to become a leader among men, but Mr. Plint thought he had the right kind of ability to make a good architect. The practical education he was now receiving was exactly what he needed. While he was learning to draw, he was also obtaining a knowledge of practical carpentry and work in metals, as well as an insight into other trades.

The boys had given the successful competitor a liberal demonstration of applause, which proved that they had no ill-will or jealousy; or if they had, they were ashamed to manifest it. The excitement had been intense, and it did not seem to moderate after the prizes had been awarded. The students wanted to know all about the plans and the location, and how the wharf was to be built.

Captain Gildrock took from his pocket a couple of fifty-dollar bills, and laid them on the desk, and Bolly was called to the platform. Another round

of applause greeted him, and the principal did not object to it. The victor was formally introduced to each of the visitors, who took him by the hand and congratulated him upon his success. Mr. Bridges said he could not help laughing when he thought of the triumphant architect doing duty as third fireman in the hold of the Sylph.

"If this boy should happen to become an architect in the future, do you suppose that what he learns in the fireroom of the steamer will be any disadvantage to him?" said the principal.

"On the contrary, I think what he learns in any capacity will be of immense value to him," replied the civil engineer earnestly. "In fact, it would be worth all it cost in any calling."

"I noticed that this young gentleman's brother was first cook," added Mr. Plint. "I have often had to get up designs and make drawings for hotels, prisons, insane asylums, and other buildings in which a kitchen was a very important apartment. Now, I am sure, if I had ever been a cook I should have been better fitted to manage the details of such a department."

"An eminent surgeon told me he was sorry he had not learned to be a carpenter or a machinist after he graduated from college, for a knowledge

of these arts would make him a better surgeon," Mr. Bridges remarked.

"Now, Millweed," continued the principal, "the students want to know all about your plans," — and this observation was greeted with a clapping of hands. "I propose that you shall tell them yourself, and explain your plans in full." This remark was applauded. "There is a large, clean blackboard behind you, and you may do it in your own way."

"I am no orator, as Brutus is," replied Bolly, blushing.

"Brutus Shoreham!" exclaimed one of the boys, and all the assembly laughed; and from that time the last of the rebels was called Brutus by the students oftener than anything else.

"I am afraid I can't speak well enough to make myself understood," said Bolly, as he looked nervously at the blackboard and then at the students.

"You need not declaim it; only tell what your plans are, just as you would explain them to one of your companions over in the grove," added Captain Gildrock, encouragingly.

"I will try, sir. Shall I explain the building, or the location first," asked Bolly.

"Suit yourself, Millweed."

"Then I will begin with the location," replied the successful competitor, as he took a crayon and turned to the blackboard, where he rapidly sketched the shore-line of the northeast corner of Beech Hill Lake.

This part of the lake formed a considerable bay, abreast of which was the school building and shops, while the dormitory was near the rocks at the foot of Beech Hill. About one third of the way across the lake was a low peninsula, whose surface was nearly flat, and not more than three feet above the usual level of the lake. This point projected out into the lake about ten rods, and formed the western shore of the bay, — called by the boys Hornet Bay, on account of a quarrel some of them had had with insects of that name, in which the hornets got the better of them.

"This is Chowder Point," Bolly began, indicating with the pointer the projection of rocks, which had formerly been much used for picnic purposes. "This is the location I have chosen for the boat-house."

"Why did n't you put it on the other side of the lake?" asked one of the students, who thought it was too far from the old wharf.

"Chowder Point is just the same distance from the shop and schoolroom as the old wharf, and only half the distance from the dormitory," replied Bolly, with patient dignity.

"And about the same distance from the mansion-house," added the principal. "I must ask the students not to interrupt the speaker, and not to ask any more questions until he has finished his explanation."

While the captain was making this remark, Bolly dashed off a parallelogram, rather more than twice as long as it was wide. It covered the end of Chowder Point, the extremity of which extended a short distance outside of it.

"This figure represents the location of the boat-house," continued Bolly, using the pointer. "You observe that about one third of the building is on the land, or rocks, and the rest of it is over the water."

"But where does the wharf come in?" asked an excited student.

"No questions!" interposed the principal. "You need not answer it, Millweed."

"I shall come to the wharf in a few minutes," replied Bolly. "The main building, represented by this parallelogram, is to be ninety-one feet long

by thirty-one feet wide, — rather narrow for the length, you will say; but the proportions will be improved a little before I finish."

The speaker took the crayon and marked off the docks for the barges. They opened at the south end of the structure, into Hornet Bay. He had made the inner ends of the two docks something in shape of the bows of the boats, so that the idea could be better obtained by the listeners.

"These docks are fifty-four feet long, and nine feet wide. The space between them is a platform six feet wide. Next to the walls of the building on each side is a platform three feet wide. You will see that I am giving you the plan of the building as well as the location; but this seems to be the most natural way to do it."

Bolly then drew a section of the structure, looking at the south end of it. At the lower part on each side four feet were added to the breadth of the house, increasing it to forty feet, with the allowance for the thickness of the sides. But this addition was only one fourth of the whole height of the house. It had a slanting roof, making the addition what used to be called a "lean-to."

The excitement of the boys increased as Bolly advanced with his plans, and they wondered what

this narrow strip on each side of the building could mean. They wanted to ask questions, and it was hard work for them to keep from bursting out into a volley of inquiries. The amateur architect drew a great many lines across this narrow addition, which tended to throw some light on the mystery. But the added strips looked very like a couple of ladders.

"These are the dressing-rooms," Bolly proceeded, when he had finished this part of the drawing. "There are forty of them, as required in the terms, and each of them is four feet by three. From each a door opens to the outside platforms on the docks."

At this point the students took it all in, and a round of applause greeted this feature, which the boys thought was an admirable one. The oarsmen could come out of the dressing-rooms in which they had put on their uniforms, and step directly into the barges.

"These additions to the sides are only six feet high at the eaves and seven at the walls. The lower story of the boat-house is twelve feet high. This leaves five feet of space above the roof of the lean-to, — that's what my father calls the L of his house. In this space are to be ten windows on

each side. There are also four windows over the doors at the end of the boat-house by which the barges are to be admitted."

"I think your building will be well lighted, Mr. Milweed," interposed Mr. Plint, thinking the speaker appeared to have some doubts on this point.

"Thank you, sir," replied Bolly, much gratified at the architect's approval. "Six feet from the inner ends of the docks will be a fence, with a gate opposite each platform," continued the speaker, indicating it by a dotted line. "The dressing-rooms end at this fence. Then there is a passage-way ten feet wide across the house. At the shore end of it is the principal entrance."

Bolly then divided the space on the plan north of this passage-way into four parts, and said they were the two storerooms, the sailroom, and the paint shop. Against the sides at this end of the structure he made two more additions, wider than the others. The one on the shore side was for the stairs to the hall; the other was for one of the four-oar boats; and a third was run along the water part of the north end for the other. Bolly explained these features of the plan at some length.

"The wide passageway through the building from the main entrance to the water side of the building leads to the wharf," continued the speaker, pointing to it on his drawing. "You will observe that the great doors on the water side are in the middle of the tip end of Chowder Point. The rock extends only four feet outside of it.

"The wharf is to be in the form of the letter T," Bolly proceeded, drawing this pier in the place where his plan located it. "The cross part, or top of the T, is to be sixty feet from the boat-house, and is to be reached by a wooden bridge ten feet wide, with a single span of fifty-six feet. The landing part of the wharf is a huge caisson, or box, sixty feet long by twelve feet wide, which is to be built at the shore, floated to the place where it is to be located, and sunk with rocks; and the bottom of the lake at this place is almost parallel with the surface of the water."

The students were filled with wonder by these last details.

CHAPTER XXIII.

VOLLEYS OF QUESTIONS ASKED AND ANSWERED.

BOLINGBROKE finished his explanation without any flourish, and when he had done he stopped, which all orators are not able to do. He was about to take his seat when the volley of questions was discharged at him; and the principal was obliged to interpose so that the inquiries could be dealt with one at a time.

"You need not answer any question, Millweed, unless you are willing to do so," he added.

"I am perfectly willing," said Bolly. "I suppose they have all found some objections to my plans, and I should rather like to hear them. Very likely some of the fellows will put questions that I cannot answer, and I don't believe I shall be able to get over all the objections that will be made."

"I should like to know what the three corners of the boat-house that are over the water are to rest upon," said Will Orwell, when a system of conducting the discussion had been arranged.

"The bottom of the lake is flat rock like the shore. As the water is only from four to four and a half feet deep where the corners come, it will be easy enough to set stone posts on the bottom, not only at the corners, but in as many places as may be necessary," replied the architect.

"Such posts would weigh at least a ton apiece, and I should like to know how we are to handle them," added Will Orwell. "One corner is over sixty feet from the shore, and we have nothing to stand on."

This was just the kind of question the principal liked to have come before the boys, for it assisted in developing their ingenuity, their ability to devise expedients for overcoming difficulties.

"I could mention several ways of doing it," replied Bolly, with a confident smile; "but I will name only the one I thought to be the best for our case. We are to build a caisson, or box, sixty by twelve for the wharf, if my plan is adopted. I propose to build this box first, and use it as a sort of scow or stage in the erection of the boat-house. We need not make the sides more than four feet high at first. We can put some timbers across it, on which a derrick can be placed."

"Excellent!" exclaimed the fat civil engineer.

"But how will you get the stone posts from the quarry to the derrick," continued Will. "We have no vessel in which they can be carried."

"With the timbers to be used in raising the wharf to the required height, we can make a raft on which two or three of the posts can be floated at a time. It can be towed by the Sylph," answered Bolly, who had evidently been over all these details.

"But you can't set these posts under water. If they don't happen to stand plumb, I don't see how you can help yourself," suggested Luke Bennington.

"But we can help ourselves, even if we have to ask the principal to send to Boston or New York for a submarine diver who knows how to lay stone," said Bolly. "I should be willing to take the job of setting the posts plumb without any outside assistance except the stone-cutters at the quarry. The bottom is nearly level, and we can obtain the exact pitch by measuring. We can cut a flat rock to fit the bottom."

"There is still another way," interposed Mr. Bridges.

"I have thought of a coffer-dam," added Bolly, glancing at the visitor.

"Exactly so; that is what I was thinking about," laughed the civil engineer.

"What 's a coffer-dam?" demanded Dave Winslow.

"There are several ways to make one," answered Bolly. "We could make an island by filling in earth: then dig out a hole in it the same as we should for a foundation on shore. Another way is to sink a wooden or iron caisson, or box, to the bottom, where it would have to be puddled with clay. Then it would be necessary to pump out the water. When this is done we should have a chance to set the posts just as we should do it on shore."

"It seems to me you don't hit on the easiest and simplest way of doing the job," interposed Mr. Brookbine. "How high will the posts of the boat-house be, Bolly?"

"About thirty feet."

"Very well; rest the posts on the bottom of the pond, where they will have a good foundation," added the master carpenter. "If you take a stick of timber and set it up endways in deep water, one half of it will be below the surface; and in four feet of depth nearly the whole weight of the stick would rest on the bot-

tom. It seems to me this is the simplest way to do it!"

The boys looked at Bolly, and their expression seemed to say, "We have got you now!" But the amateur architect smiled as confidently as ever.

"That plan would do very well in Florida or the West Indies," he replied; whereat the corpulent civil engineer laughed out loud.

"Why not in Vermont?" demanded the carpenter, wondering what Mr. Bridges was laughing at.

"We sometimes have the thermometer twenty degrees below zero, and under the new boat-house the water may freeze to the bottom. When the ice expands, it will be likely to give three corners of the boat-house a lift which the fourth will not get on the solid rock shore. If all the posts were in the water it would do better."

Mr. Brookbine laughed with the civil engineer then, and admitted that he had not thought of the ice.

"But I think it would cost more to stand the posts, thirty feet high, on the ends in the water than it would to build the caissons for coffer-dams," added Mr. Bridges. "I suppose you will

raise the building in sections, but you must have something to hold on to in the water, and sink the ends of the posts to the bottom."

"Now, Millweed, you have mentioned several ways of managing the posts in the water, I wish to ask which of these ways you think is the best one," said Captain Gildrock.

"The stone posts," replied Bolly promptly. "With only about four feet of water I think there will be no difficulty in chinking them up at the bottom."

For an hour longer the boys continued to ask questions, and Bolly was not caught in anything, though it is probable that the architect or civil engineer could easily have tripped him up if they had chosen to do so. But the principal announced the suspension of the school for the rest of the forenoon, in order to convey the visitors to Whitehall in the steamer.

Captain Gildrock took up the two fifty-dollar bills he had laid upon the desk, and turned to the successful competitor, who had been requested to remain on the platform.

"As I said in the beginning, I cannot allow the money obtained for the plans to be fooled away, for one of the most important lessons an American

boy ought to learn is how to take care of and use money, as well as how to earn it. What do you intend to do with the hundred dollars, Millweed?" asked the principal.

"I shall give it to my father," replied Bolly without any hesitation.

"That is an excellent use to make of it, and I hand it over to you without asking any more questions," added the principal, suiting the action to the words.

A round of applause saluted Bolly again. He had gone up a hundred degrees in the estimation of his companions, who had been unable to corner him with their questions. The order was given for the boys to put on their steamer uniform, and take their stations on board of the Sylph. Bates had already got up steam, and a plentiful supply of provisions had been put on board. In half an hour the steam yacht departed, and everything on board of her went along in as good order as though she had been a regular packet on the lake. The passengers were to dine on board, and cooks and stewards went to work in their departments at once.

The excursion was a very pleasant one, and the guests spent most of the time on the way up

in talking with the boys in regard to what they had learned at the school. They were delighted with the institution, and Mr. Bridges declared that the States could not do better than to establish such schools in place of some of those in which Greek and Latin were the principal branches taught.

Mr. Plint pointed out to the principal a few details in which he thought Bolly's plan could be improved, and after making these alterations he intended to erect the building at once.

"But you do not expect those boys to do all the work?" suggested Mr. Ritchie.

"I expect them to do nearly the whole of it. When I return I shall set the quarrymen to getting out the stone posts. I shall go to Burlington at once, for Brookbine is arranging the plan for framing the building, and will give me a list of the lumber needed, and purchase it. The boys will tow it down in rafts, though I shall employ a number of laborers, for I don't wish to let the boys injure themselves."

"But it will take a long time to put up and finish the building," added Mr. Bridges.

"I don't expect to have it completed until next spring. We shall finish the outside by Decem-

ber, and make a winter's job of the inside work."

At Whitehall the visitors, except Mr. Ritchie, took their leave of the boys, and went on shore, promising to come again the next season. The students gave them three cheers as they landed, and then the Sylph began her homeward trip. As she passed Sandy Beach Cove, the barges of the Chesterfields were seen pulling out from the shore. It was soon evident that they wished to speak with those on board of the steamer. Oscar Chester, the second pilot, at the request of the principal, rang to stop her, and the Dasher came up to the forward gangway.

"I should like to speak to the coxswains of the barges," said Mad Twinker, who appeared to be the commodore of the fleet.

"I am the coxswain of the Gildrock," replied Matt Randolph, at a nod from the principal.

"We have two boats like yours, and we have been learning to row," said Mad Twinker. "We think we can pull pretty well now, though there is room for improvement, we grant. We desire to extend to you a friendly invitation to row with us for a suitable prize."

"Young man," interposed Captain Gildrock, "I

cannot allow the Beech Hill students to row with you at present."

"Why not, sir?" asked Mad Twinker, apparently astonished at this interference.

"Although they are likely to become mechanics, most of them, I wish them to be gentlemen at the same time, and I am rather careful with whom I allow them to associate."

"But we claim to be gentlemen, sir," exclaimed Mad, indignantly.

"The claim is not admitted. When our boys first saw you the other day you called them 'members of the Tinkers' Institute,' 'chip-makers,' 'greasers,' and many other offensive epithets. You stole their clothes while they were in the water, and since that you attempted with your associates, the Topovers, to steal our boats. When you have learned to be true gentlemen, I will withdraw all objection. Go ahead, pilot!"

The commodore of the barge fleet wanted to discuss the matter, but the Sylph steamed away before he had a chance to get in a word. Ben Ludlow thought they were even with the Chesterfields then, and in half an hour the boys were looking over the site of the boat-house and wharf.

CHAPTER XXIV.

THE NEW CAPTAIN OF THE SYLPH.

MR. BROOKBINE had been hard at work over the plan of the building in getting the amount of timber required for the frame. Captain Gildrock had assured him that no material change would be made in the drawing of Bolly. They might alter the arrangement of the store-rooms, and use a portion of the immense vestibule on the second floor for a library, or committee-room.

Bolly had suggested a gallery or balcony on the water side of the second story, which might be added, but none of these changes would affect the frame. When the captain returned from Whitehall the master carpenter gave him the list of timber required for the frame.

The granite quarry in the rear of Beech Hill was owned by the shipmaster, and about all the building-stone used in Genverres was taken from it. The owner did not care to be bothered with it, and a quarryman managed it, paying so much a cubic foot for all the stone taken out of it.

Thirteen stone posts would be required for the water-foundations of the boat-house, and Captain Gildrock rode to the quarryman's house at once to order them. Early the next morning the principal went to Burlington, and ordered the lumber. Before breakfast, Bolly, assisted by the other students, staked out the building. The approximate positions of the foundation posts were indicated by mooring sticks with stones in the bay. But the lessons went on as usual, and the boating and swimming exercises were not interrupted.

The boys were full of enthusiasm, and were impatient for the actual work of the house to begin. The more they considered the plan which had been adopted the better they liked it. All the plans which had been offered for the prizes were returned to the makers of them; but quite a number of the competitors destroyed them as soon as they got hold of them, and no one but themselves and the committee ever knew what blunders they had made. Yet a few of them were not ashamed to exhibit their work.

Not a single one of them had selected the location chosen by Bolly Millweed. Some of them had bridged the lake, and put the boat-house over in the grove, but most of them had placed it near

the old wharf. One admitted that he had made the structure two hundred feet long, with dressing-rooms ten feet square.

For a week the principal said nothing about the new building, except that he had ordered the lumber. The boys knew that the quarryman was at work with all his force on the foundations, and they were nearly ready. At the close of the school on Friday, about a week after the adoption of the plans, the principal took his place on the platform.

"To-morrow will be our usual day for a steamer trip, but I will change the programme a little," said he. "We shall go to Burlington and tow the wharf-caisson, or box, up to the quarry. I concluded to have this affair constructed by a bridge-builder at Burlington, for it was rather too heavy a job for boys to manage."

The boys manifested their satisfaction at the announcement by applause. It would be fun to tow the caisson up the lake, and get it through the creek, to the quarry. But why was it going to the quarry?

"We shall load the thirteen stone posts upon it, and bring them down all at once," replied the principal in answer to this question. "It is built

of tun timber, and the sticks needed to raise it to the proper height as a wharf will be placed inside of it."

"Tun timber; what is that?" asked Ben Ludlow.

"It is a name given to timber a foot square or more."

"How about the slant for the bottom?" asked Bolly, with some anxiety on his face, for he was afraid his idea in its construction had not been carried out.

"I had it built in accordance with the sketch you gave me. If you look at the chart, boys," continued Captain Gildrock, pointing to it on the wall, "you will see that the water suddenly shoals six feet at the distance of forty feet from Chowder Point. In other words there is a step of that height in the rock, such a one as you may see just beyond the dormitory in the side of Beech Hill. Bolly has located the wharf outside of this step, where he found ten feet of water."

"But the bottom slants off six inches in twelve feet," added Bolly.

"And I had the bottom of the caisson built to fit this slant," continued the principal.

"That 's all I wanted to know," said Bolly, satisfied that his intention had been carried out.

School was dismissed, but after dinner the usual work in the shop was done. The boys were making as many tool-boxes as there were students, for they would be needed while they were at work on the boat-house. An hour earlier than usual on her Saturday trips the Sylph started for Burlington, for it might take all day to get the caisson up to the quarry. But there was no change made in the organization of the ship's company, and everything went on as usual.

They found the caisson in the water just below the city, where it had been built, and the boys gave three cheers when they saw it. Bolly was an "idler;" that is, his watch was not on duty in the fire-room. He leaped from the gangway as the steamer came alongside of the structure, and inspected it with the greatest gravity and dignity. In answer to the question of the principal he declared that the caisson was all right in every respect.

After the boys had examined the caisson, all hands were called and assembled on the forward deck. The principal had a letter in his hand which had been handed to him since the arrival of the Sylph. He informed the students that he had intended to remain on board during the trip, but

some bank business of the greatest importance required him to remain in the city till afternoon. He should return to Beech Hill on the train, and expected to be there by the time the steamer reached the river.

The principal was the captain of the steamer, and he had always been on board during the Saturday trips. He sometimes sent Dory Dornwood away in her, with Mr. Jepson in charge of the engine, a gardener doing duty as fireman, and Bates as deck hand; but she had never come out of the river with her regular ship's company on board in the absence of the captain. The students jumped to the conclusion that Dory would be made captain on the present occasion.

"The organization of the ship's company will remain just as it is," said Captain Gildrock. "You have learned to obey your officers even if you think you know more than they do; and this was a very valuable lesson to learn."

"It's Captain Dory Dornwood now, I suppose," suggested Life Windham, as all hands glanced at the first pilot.

"Not at all," replied the principal. "On sea steamers they don't have pilots, for the captain navigates the vessel. The pilots on river and lake

steamers are a sort of independent officials. In our plan the first pilot is the fourth in rank, and if the captain should be lost overboard, he would not succeed to the command. The first officer is next to the captain, and he takes charge of the steamer in the absence of the captain."

"Thad Glovering!" exclaimed half a dozen students in the same breath.

"Glovering will be the captain in my absence, and you will respect and obey him accordingly," added the principal. "Captain Glovering, you will tow the caisson to the quarry, and I must leave at once."

"Three cheers for Captain Glovering!" called Ben Ludlow; and they were given.

Captain Gildrock went on shore, and disappeared at once. Some of the first-class students did not like it very well to have a second-class fellow put in as captain over them; but they were too well disciplined to find any fault.

"Of course Dory will have to show him how to do it," said Bob Swanton.

"The captain can ask the advice of anyone he likes, but he can do as he pleases," added Corny Minkfield, rather smartly.

But Thad did not ask anybody's advice just

then. In spite of some gentle sarcasm uttered by the older boys, the new captain soon showed that he knew what he was about. The large hawser by which the caisson was to be towed lay on the top of the timbers with which it was loaded, the upper ones serving as a deck. It had been made fast to a huge pin in the centre of one end, indicating that the box was to be towed by a single line.

There were also big cleats at the four corners of the structure, placed there for the stays to the derrick. The new captain directed the second officer to take two hawsers and make one fast to each of the corner cleats. Will Orwell obeyed the order, and the other ends of the hawsers were sent on board the Sylph. They were carefully secured to cleats in the stern of the steamer.

"Go ahead, if you please, pilot," said Thad, when all was ready.

The propeller was put in motion, but it required a little time to start the heavy tow. When it did start, it butted against the corner of the wharf. The first-class students thought the time of the new captain's defeat had come.

"Stop her!" shouted Thad, as soon as he discovered the nature of the difficulty. "Cast off the port tow-line, Mr. Orwell!"

"Port line clear, sir," reported the second officer, now doing duty as first.

"Go ahead, Mr. Pilot!"

Dory at the wheel rang the bell, and the propeller began to turn again. As soon as he got steerage way, he headed the steamer away from the shore. The starboard line was now doing all the work, and exercised all its force on that side of the caisson. Of course it hauled the tow away from the wharf. But the captain stopped her as soon as the box was clear of the obstruction. The port line was made fast again, and care was taken to see that both tow-ropes were of the same length.

The first class were willing to admit that the getting under way had been well managed, and they were magnanimous enough to give the new captain the credit he deserved. The Sylph tugged away at her heavy burden, and the log showed, when the steamer was off Rock Dunder, that she was making about three knots. There was nothing more to be done with the tow, though the rate of speed was soon increased to four knots.

It was a monotonous trip, but everything was in the usual order on board. Dinner was served at the proper time, and at three o' clock the Sylph

was approaching the mouth of the river. When she was within half a mile of it the second pilot, who was on duty, reported that the barges of the Chesterfields were coming out of the stream.

"I am sorry for that," said Dory Dornwood, as he went into the pilot-house to take a look at the approach of the boats.

"So am I," replied Oscar Chester. "I wish you were in command instead of Thad Glovering."

"Thad will do very well," answered Dory.

"Those fellows can't let us alone if they try. What's that? They have passengers in the stern sheets."

Dory took a spy glass from the brackets and glanced at the barges.

"They have eight of the Topovers with them."

"You will see most of that crowd on board the caisson before long," said Oscar. "They will cut the tow-lines or cast them off if they can."

At this moment Captain Glovering entered the pilot-house.

CHAPTER XXV.

THE FIRST OFFICER AND PARTY IN BATTLE ARRAY.

THE feeling which had grown up between the Beech Hill and the Chesterfield students was not hatred, enmity, or even ill will. When they first met near Sandy Beach neither party could have had anything against the other. No traditional hatred had been handed down, for both institutions were new.

The Chesterfield Collegiate Institute was established only a year before, and was intended to be a very high-toned establishment, judged by the society standard. The boys were generally the sons of rich men or merchants, with a standing in the world; and Colonel Buckmill catered for this class. Everything about the school was genteel, and the boys had been taught to "feel their oats."

In accordance with their education they naturally looked down upon farmers, mechanics, and small shopkeepers. They were gentlemen, and the sons of gentlemen, the principal said, and he

treated them as such. Out of this feeling on the part of the students had come the bad conduct of the Chesterfields at their first meeting with the Beech Hillers. They expected, and probably received from the country people in their immediate vicinity, a certain degree of deference, for the institute was a good customer to all who had anything to sell.

Doubtless the possession of the new boats had excited them to a degree which made them somewhat reckless when they were away from the influences that surrounded them at the school. But even in the offensive epithets they had applied to the students from the other side of the lake, they meant no evil. When they were treated with the contempt of silence they felt like great men who had been neglected, and they wanted to make themselves felt.

But they had been beaten with their own weapons, and the desire to humiliate their school-neighbors was increased. They wanted to get the Beech Hillers into some sort of a scrape, to annoy them all they could, and though the Topovers were not at all after their style, they were glad to make friends with them for the time, in order to accomplish their purpose.

It looked as though the Chesterfields had come across the lake for the purpose of doing mischief to their conquerors in the two former contests. They could hardly have come to give the Topovers a pleasure excursion in their elegant barges, and their presence in the boats made it appear that they meant mischief.

It must be acknowledged that the Beech Hill students generally enjoyed these meetings with the enemy, as they regarded the Chesterfields, for the contests with them were full of excitement and fun. But on the present occasion they were too full of building, too much interested in the enterprise of moving the timber from Burlington to the quarry, to care for a battle with the young gentlemen from the other side.

Most of the students wished that Dory Dornwood were in command of the steamer, for he had twice proved that ne was more than a match in skill for the Chesterfields. As it was, Captain Thad Glovering was the autocrat of the occasion. All hands must obey his orders, even if they led to the most disastrous failure. Mr. Jepson was the only adult on board; and in his present capacity of chief engineer of the steamer, he was as much under the orders of the captain as any of

the boys. He simply minded his own business, and did his best to instruct his two assistants in the structure and management of the engine, hoping the time would soon come when he could be relieved from his somewhat disagreeable position.

Captain Glovering saw that the Chesterfields were making for the caisson with all the speed of their boats. They would not attempt to meddle with the steamer, but they could put the Topovers on the caisson, and the first thing they would do would be to cast off the hawsers. They were cutting across the shoal water, and would come out in time to intercept the tow.

"What do you think of it now, Dory?" asked Oscar Chester, in the pilot-house.

"Of course those fellows mean to pay off the old score if they can," replied the first pilot. "I doubt if we are ever on good terms with the Chesterfields, as I wish we could be."

"I suppose they don't feel any better towards us after what the principal said to them when they hailed the steamer, and wanted to get up a race. They are the sons of the magnates of the land, and it was rough for Captain Gildrock to tell them they were not gentlemen, and that he would not

allow us to associate with them for that reason," added Oscar, chuckling, for all hands had enjoyed the snubbing which the principal had given them.

"My uncle told them the simple truth, though it was hard for them to digest," replied Dory, as he glanced at the two barges.

"Don't you think you ought to have a talk with Thad Glovering, Dory?" asked Oscar, after he had watched the approaching barges for a moment. "He don't seem to be doing anything, and in ten minutes more we shall have to pick up the tow."

"If Captain Glovering asks my advice, I shall give it to him; but not without. I have no more right to meddle with his business than any other fellow," replied Dory, very decidedly. "If I were in his place I should not want every fellow putting his finger in my pie. He is responsible for the steamer and the tow; and in my opinion Thad knows what he is about."

Captain Glovering was on the hurricane deck, watching the approach of the boats. He did not seem to be at all nervous or uneasy in regard to the situation. The Sylph was just beginning to round in so as to strike the channel. On the

other side of it the water was only from one to three feet deep, and the caisson would make a wide sweep in coming about.

"If the tow should get adrift here it would ground in shoal water," said Dory, as he glanced again at the approaching barges.

"Captain Glovering has just called Will Orwell, and he means to do something. It is time something was done," replied Oscar.

The acting first officer had come on the hurricane deck, and the captain was apparently giving him some orders. Will hastened to the forward deck again. All hands were called; and this summons included all who were not actually on duty in the engine and firerooms or the pilot-house, for the work of the cooks and stewards was finished for that day.

Will selected eight of them and sent them to the stern of the steamer. It was evident that something was to be done, and the students wondered what it was. The captain was not asleep, and it was clear that he was conscious of the perils of the tow. Thad had observed with admiration the conduct of Dory in the former engagements with the Chesterfields and Topovers, and he had strictly obeyed every order without

asking a question. He was glad of the present opportunity to distinguish himself, and he hoped to give a good account of himself.

"Mr. Pilot, I wish you would hug the port side of the channel, and get the tow as far as possible from the shoal water," said Captain Glovering, entering the pilot-house as soon as he had given his orders to the first officer. "I wish to stop her as soon as possible."

"I have been doing that, Captain Glovering," replied Dory. "It will be safe to stop her as soon as you give the order."

"Thank you," added the captain, with more politeness than is usual on board of vessels.

Captain Glovering hastened to the stern of the hurricane deck where he could see the tow. Will and his eight hands were on the rail ready to do the duty intrusted to them. The captain called to the pilot to stop her. The order was promptly obeyed, but the headway of the Sylph kept her at the same relative distance from the caisson. Then a few strokes back were called for. The first officer had put fenders over the stern; but the captain did not allow the tow to come in contact with the steamer.

As soon as the caisson was near enough, Will

and his party leaped on board of it. The captain had given the order to go ahead before they did so. The steamer straightened the tow-lines, and in a few moments everything was moving on as before. The wind was light from the northwest, and Dory hugged the weather side of the channel; but the Sylph was still half a mile from the nearest point of land at the entrance of the river.

"The captain has done something, but I have n't the least idea what it is," said Oscar, as the tow-lines began to stretch.

"Neither have I, for I have not even looked behind me to see what he was about," replied the first pilot, who never neglected his own duty to attend to other people's business.

"He has put the first officer and eight of the fellows on board of the caisson," added Oscar. "But there are thirty-five fellows in the barges, and the captain don't expect to beat them off with only nine of ours. I wonder he did not send the whole crowd except what are needed to work the steamer."

"Don't be in a hurry to criticise, Oscar," laughed Dory, without even looking out at the rear windows of the pilot-house to see what the captain was about.

"Does Thad Glovering expect nine of our fellows to whip four times their number?" demanded the second pilot, who was evidently beginning to be somewhat excited. "We are not going more than three knots now, and the Chesterfields can have it all their own way. Our fellows can't do anything on the caisson when the barges pour in twenty or thirty fellows upon them; and the Topovers are fighting men."

"Keep cool, Oscar," said Dory, smiling.

"Do you know what the captain's plan is, Dory?" asked the second pilot nervously.

"I do not; I have not the first idea in regard to it," answered Dory. "But I think you had better go astern where you can see what is going on. If there is going to be a fight Captain Glovering will certainly want you; and you may have a chance to tackle Tom Topover."

"I should like the chance," said Oscar, as he left the pilot-house.

By this time the barges were within a few rods of the caisson. One was bearing down upon the stern, and the other upon the starboard side of it. Mad Twinker, who was leading in the Dasher, was evidently the commodore of the squadron, for he gave orders to Jeff Monroe in the Racer. He

clearly had a plan, and intended to capture the caisson, or at least to set it adrift.

In the bow of the commodore's barge was Tom Topover and Nim Splugger, ready to leap on board of the expected prize. In the Racer, Kidd Digfield and Pell Sankland occupied the corresponding positions. The other Topovers were seated in the rear of their leaders, and were to follow them in the boarding exploit.

When the barges were within fifty feet of the caisson the captain's plan was suddenly developed. On the top of the timber were a dozen long pike-poles, which Captain Gildrock had ordered at Burlington. Each one was armed with a sharp spike in one end. They were to be used in raising the building, and in managing the caisson in the narrow creek.

At the word from Will Orwell, each of the nine students picked up a pike, and poised it in the direction of the approaching barges.

CHAPTER XXVI.

THE RESULT OF THE BATTLE ON THE CAISSON.

COMMODORE MAD TWINKER could not help seeing the preparations on board of the caisson for the reception of his party. He saw the pike-poles, but he could not know that the ends were armed with spikes. Doubtless he supposed the weapons were simply to be used in shoving the barges away from the tow.

Oscar Chester saw at a glance, when the party on the caisson picked up the pikes, that the captain of the Sylph was likely to make bad work with the boats of the enemy. He walked forward to the pilot-house and reported to Dory the state of things, for the first pilot had not yet looked astern.

"Will Orwell's party can stave their boats all to pieces in less than two minutes," added Oscar, somewhat excited still.

"I hope he will not have occasion to do that," added Dory. "The Chesterfields can see for themselves that the iron points will go through

the cedar planking as if it were nothing but paper."

"I don't think they know that the poles are armed with spikes."

"They can see what they are in season to back out," added Dory, as Oscar returned to the stern of the steamer to watch the proceedings, and take a part in them, if required.

"Keep off! keep off!" shouted Will Orwell, as the Dasher approached the caisson.

Instead of heeding this warning, the Chesterfields gave three cheers, as though the victory were already won, and they had possession of the caisson. The commodore quickened the movements of his oarsmen, and the Topovers in the bows of the boat were all ready to spring upon the prize.

"Keep off, or we will stave your boats all to pieces!" shouted the first officer, louder and more vigorously than before.

A yell of derision greeted him, and the barges still advanced to the destruction that awaited them.

"These poles have an iron spike in the end, and they will go through your boats every time! Keep off, or your boats will be spoiled!" shouted Will Orwell; and certainly the Chesterfields could

not complain that they had not had sufficient warning.

The first officer was very reluctant to do any damage if the enemy could be repulsed in any other way. He placed himself at the point where the Dasher was likely to come in contact with the caisson, and held up his pike-pole so that the reckless assailants could see what it was.

"Hold on!" shouted Mad Twinker, when his craft came within a short distance of the intended prize. "Drop oars!"

Without the action that followed these orders they would not have been intelligible to those on the tow. It was evident that the Chesterfields did not follow any known system, but had invented their own commands. The first order meant for the crew to cease rowing, and the second to hold water. These were followed by an order to back her. Will hoped that the assailants had discovered the wicked nature of the pikes, and were intending to save their boats; but it was soon evident that the speed of the barges had been checked so as not to stave the boats in the collision.

"All ready forward there!" shouted the coxswain of the Dasher. "Tumble them overboard if they don't get out of your way."

"Let her went!" screamed Tom Topover, as he stepped on the bow rails of the boat, where he balanced himself so that he could leap readily upon the caisson.

The order of the commodore indicated no sign of relenting, and Will Orwell realized that all his warning and explanations had done no good in opening the eyes of the Chesterfields and their allies. The Dasher was coming slowly up to the raft, for her speed had not been fully checked. When it was within ten feet of the point where he stood, the first officer saw that the time for action had come. With a well-directed lunge with his pike-pole, he drove the end of it entirely through the bow planking of the barge, about on the water line.

The thin boards snapped and splintered, and the pikeman had some difficulty in withdrawing his weapon from the wound he had made. The force of the blow had overcome what little momentum the barge had, and brought her to a standstill. Four more pikes were ready to complete the work of destruction the instant the first officer gave the order.

"There is a hole stove in the bow!" yelled the bowman of the barge.

"'Punch her again,' added Will; and, as he did not indicate who was to act, all four of his party obeyed the order."—Page 263.

"Shove her ahead again!" added Tom Topover, mad with excitement.

"Row again!" shouted Mad Twinker to his crew; and this order made it clear that he did not intend to retire from the contest.

"Punch her, Lew!" said Will, as the barge began to advance again. "Hit her a little lower than I did."

Lew Shoreham was a stout fellow, and he rammed his pike through the other side of the bow, just below the water line. The wound he made was a more ragged one than the first, and the water poured into the barge like a young cataract. But Mad promptly checked the movement of the boat so as to strike the tow gently, for the safety of his own craft.

The stem of the barge had come within three feet of the caisson, and Tom Topover made a flying leap. He was followed by two others; but the last one fell a little short of the mark, and went into the water, though he caught hold of the tow with his hands.

"Punch her again!" added Will; and as he did not indicate who was to act, all four of his party obeyed the order, the other four being at the stern to receive the assailants of the other boat, which

had not yet come within punching distance of the caisson.

The effect of all these blows was to riddle the bows of the Dasher, and crowd her away from the tow. As the latter was now making at least three miles an hour, the shattered barge fell astern of her prey. The water was pouring in at the bow of the boat through half a dozen ragged holes, and the craft was settling rapidly.

"We are sinking!" cried one of the Chesterfields.

Mad Twinker seemed to realize the situation by this time, and all his warlike energy evaporated. He called the remaining Topovers from the bow, and several of his crew from the forward thwarts. As the boat had been well down by the head on account of the weight of the five boarders who had been stationed there, the order of the coxswain relieved the boat from her peril immediately. But she seemed to be half full of water.

Three of the Topovers had secured a footing on the caisson. All of them struck on their faces, and Will could easily have rolled them into the water; but no attention was given to them, and they crawled out from under the pikes of the victorious defenders of the craft. They made their

way to the forward end of the tow; but the disaster to the Dasher disturbed their calculations, and suddenly cooled their warlike enthusiasm.

"That boat has had enough of it for to-day," said Will Orwell, as he glanced at the Racer approaching at the stern of the caisson.

"She can't do anything more if she tries," replied Lew Shoreham. "We can make short work of the other barge."

But Jeff Monroe, the coxswain of the Racer, was not blind. He had been watching the onslaught of the Dasher, and had seen her bow riddled by the pikes of the defenders of the caisson. He could see her settled down in the water almost to her gunwale. Four pikes were poised ready to inflict the same chastisement upon his own craft, and against such weapons he was powerless to contend. He gave the order to hold water when the Racer was within ten feet of the caisson, and then to back her.

"He has concluded not to take his punching," said Will Orwell, who had reinforced the stern with his party.

"He would be a fool if he did not back out, after what he has seen," added Lew Shoreham. "There won't be any more music to-day."

"I think not; and the band may put up their instruments," continued the first officer, as he dropped his pike-pole on the timbers. "Halloo, there! What are you about?"

This sudden change of tone on the part of the officer was caused by the movements of the Topovers on the tow. Tom had appeared to be somewhat bewildered by the failure of the expedition of the Chesterfields, and stood quietly on the forward end until the Racer backed out and pulled for her battered consort. While Will and his companions were watching the movements of the second barge, Tom had made a sudden dive at the cleat on the starboard side, and Nim Splugger rushed to the port one.

Tom had succeeded in casting the tow line on his side loose, though one fold of the rope still lay under the cleat. Nim had not yet been able to loosen the other, the securing of which had been finished with a half-hitch. Will and his force rushed forward to prevent the tow-lines from dragging overboard. Lew Shoreham seized Nim Splugger by the collar of his coat while he was still at work on the rope.

"What are you goin' to do about it?" demanded Tom Topover, springing to his feet, and putting

himself into a fighting attitude. "I can lick the whole of you."

Will Orwell was no match for such a fellow as the leader of the Topovers, but he rushed upon him, and got a heavy blow in the face. The second officer was not a fighting man, and, instead of hitting back with his fist, he threw himself upon his antagonist. Phil Gawner went behind him, and clasped his arms around the neck of the chief marauder, while Dick Short went for the legs of the bully. Two others got hold where they could, and all of them succeeded in crowding Tom down upon the timbers.

Lew Shoreham had got his victim under him, and he was strong enough to hold him there. The third Topover, who had been pressing the water out of his wet clothes, attempted to help Nim, but three of the steamer's party went for him.

"That's no way to fight," puffed Tom Topover, as he lay wriggling under the four deck hands. "Let me up, and I'll wallop the whole of you."

"We don't want to be walloped, and you had better stay where you are. Don't let him up, fellows."

They did not, and Will hastened to secure the hawser, which was running overboard. At this

moment the steamer stopped, for Captain Glovering had closely observed all that happened on the caisson. The starboard quarter-boat of the Sylph was lowered into the water. Will was thinking what he should do with his prisoners, when a boat from the steamer came alongside. Oscar Chester was in charge of it, with four of the crew at the oars.

As the boat came alongside, Oscar threw a handful of small line on the timbers, saying it was the order of the captain that the arms of the prisoners should be bound behind them. The second pilot sprang on board, and was happy to take a hand in the ceremony, as he called it, though it would have pleased him better to stand up alone with the chief ruffian.

As the three Topovers were held down, there was no difficulty in executing the order of the captain. Tom swore, and was furious in his wrath. Nim Splugger struggled to escape, but all of them were secured.

"I am directed by the captain to land them on the point," said Oscar, when the operation was completed.

Tom protested. He should have to walk two miles; but no time was wasted on him, and he was put on shore.

CHAPTER XXVII.

THE INTERVIEW BETWEEN THE TWO PRINCIPALS.

AS the Sylph and the tow had been in motion all the time during the battle on the caisson, they were within a few rods of the point. Tom Topover wanted Oscar Chester to put him on board of the Racer, but the request was denied. The second pilot also refused to unbind him and his companions when he landed them, for he would incur no risk.

The tow-lines had been adjusted, and the steamer was again making her way up the river when the boat returned. Tom used a great deal of bad language when he found himself standing on the point with his arms tied behind him, and Oscar wanted to thrash him, as he was confident he could, but he obeyed his orders to the letter.

The two barges were half a mile from the point. They had come together, and the crew of the Dasher were baling her out. By keeping the crew well astern, the ragged holes in the bow

were raised above the water line. The Topovers who had been on board of her were transferred to the Racer. The Chesterfields were a sorry crowd, and as they had no further use for their allies, the Racer conveyed them to the point.

Of course Tom's bonds were removed then, and as the Racer started for the other side of the lake the Topovers took up the line of march for Genverres. When the Sylph reached the first bend in the river, the Dasher, pulling only half her oars, had begun her voyage across the lake. The Racer kept close to her, but she seemed to get along very well, though very slowly.

"I don't believe those fellows will feel like coming over here again very soon," said Oscar in the pilot-house.

"I don't know about that," replied Dory Dornwood. "This is the third time they have got the worst of it; but I have no idea that they will ever be satisfied until they get even with us."

"That is just what I think," added Captain Glovering, who was seated in the pilot-house. "But I don't believe they will want to attack us on the water again."

"If we had n't had those pike-poles we could not have done a thing, and it was only an accident

that they happened to be on the caisson," continued Oscar.

"I don't think so; we should have found some other way to meet them," answered Captain Glovering. "When they have had as much experience on the lake as we have, they may be able to do something."

"But the Topovers are madder than the Chesterfields, and they are our neighbors," suggested Oscar. "I believe we shall hear from them again soon. Tom swore he would fix us yet, and if he ever caught me alone he would pound me till I couldn't see out of my eyes. I only hope he will meet me alone."

"Let him alone; don't get into any quarrel with him," said Dory, in his quiet way.

"I shall not seek any quarrel with him, and I will do the best I can to avoid a fight; but if I get into one in a natural way, I shall try to be a muscular Christian."

"The Topovers are more likely to steal our boats in the night, to turn the Goldwing adrift, or something of that sort, than to make an open attack upon us," argued the captain.

"My uncle would prosecute them if it were not for making their parents pay their fines," said the first pilot.

When the Sylph reached the creek, the real difficulty of the trip began. The first officer and his party were still on the caisson; but the captain put a dozen more of the ship's company on board of it. They were to use the pikes to crowd the tow away from the shore and the shoal water when it could not be done by means of the double tow lines.

Oscar, who as second pilot had made a careful study of the depth of water in the creek as well as the lakes, was sent on board; and the special charge of the tow-lines was given to him. Slacking one or the other of these proved to be sufficient until the caisson reached the V-point. In spite of the tow-lines the tow dragged on the bottom, and a good deal of vigorous work had to be done with the pike-poles.

The passage through Beech Hill Lake was observed by the instructors, and all the servants from the house and garden, until the steamer went into the creek above. Some hard work had to be done with the pike-poles before the caisson was moored at the stone wharf, but before supper time the Sylph was at her wharf.

Captain Gildrock had been detained in Burlington by the affairs of the bank until the last train;

but he arrived early in the evening. Captain Glovering reported to him at once, giving a full account of the encounter with the Chesterfields and Topovers. The principal was sorry to hear this story of contention with the students from the other side and the marauders of his own side. He approved the action of Captain Glovering, even to the staving of the boat, for it was done in defence of the property entrusted to his care, as well as in protecting the persons of the ship's company. If he intended to do anything about it, he kept his own counsel.

Unlike the commanding officer of the Beech Hillers, Commodore Twinker did not report his proceedings to the principal of his school. On the contrary, he tried to conceal them, and the shattered Dasher was rowed to the boat-builder in Westport for repairs. Her crew kept her under the high bank of the lake when they passed the institute buildings.

But it so happened that the principal had been over to Burlington on a steamer, and saw the Dasher when she came into Westport. He inquired into the matter, and the students told a story to suit themselves; but the main feature of the narrative was that they had been grossly

insulted by both the principal and the "Tinkers" of the Beech Hill School. The Chesterfields had been told by Captain Gildrock that they were not gentlemen, and were not fit to associate with his pupils. The crew of the Winooski had treated them with contempt, and run into their boat.

Colonel Buckmill was indignant, and on Monday he went over to Beech Hill. He stated his business in a gentlemanly manner, dwelling mainly on the charge of the captain that the Chesterfields were not fit company for the Beech Hill students. Captain Gildrock admitted that he had said so, and still held to that opinion. He was as gentlemanly as his visitor, but his views were very decided. He went over the three encounters with the Chesterfields and their allies, and sent for Dory Dornwood to explain the first meeting of the crews of the barges.

Colonel Buckmill "got a flea in his ear," but his own views of "greasy mechanics" were not very different from those of his pupils. Though he did not say so in so many words, he thought the students of the Chesterfield Collegiate Institution were entitled to a good deal of deference from boys "picked up in the streets." The captain

did not see it in this light, and the two principals did not get ahead any better than their pupils.

"While my boys behave themselves like gentlemen, I expect them to be treated as such," replied Captain Gildrock. "I expect them to defend themselves if attacked; but if they go out of their way to invite an attack, I will take the boats away from them, and not allow them to leave the school grounds until they learn better. Your students have been the aggressors in every instance."

"Silence is sometimes more insulting than speech, than even offensive speech," replied the colonel proudly.

"Your views differ very essentially from mine, Colonel Buckmill, and it is hardly worth while to attempt to reconcile them," continued Captain Gildrock. "You are on one side of the lake and I am on the other, and there is not the least occasion for any collision between us, or between our students. If your boys will let mine alone, I will agree to keep the peace."

"But I expect my young gentlemen to be treated with respect, even on the lake," insisted the colonel.

"When one of our barges met your boats, our

boys tossed oars, which is the highest token of respect in a boat; but your students did not even know what it meant, and greeted ours with offensive epithets. But not a word in retaliation came from the mouth of a Beech Hill student. After that our boys very carefully avoided yours. The attack last Saturday was entirely unprovoked."

"But it grew out of former occurrences," reasoned Colonel Buckmill.

"I have explained the nature of the first meeting. I have my remedy in the courts if these outrages are repeated," added Captain Gildrock.

"In the courts!" exclaimed the visitor, rising to his feet in astonishment and indignation. "Do I understand you that you intend to prosecute my young gentlemen?"

"If the principal of their school justifies them in their conduct and declines to control them, I shall certainly protect my boys from insult and assault in the best way I can," answered the captain decidedly.

"These affairs are nothing but the frolics of young gentlemen, and it would be outrageous to take them into the courts," added the colonel, more moderately. "Your students have nearly ruined

one of our boats, and I could make a just claim for damages."

"I hope you will make it," said the captain, laughing.

"I do not desire to settle such frolics in that way."

"I think nothing more need be said, Colonel Buckmill. Your boys have a perfect right to navigate these waters. My boys have thus far proved that they are able to take care of themselves; but I dislike these collisions. I only ask you to do what I will do myself; my boys shall not meddle with yours; and the least you can do is to require yours not to meddle with mine. I should be glad to establish friendly relations between the students of the two schools —"

"None of my young men are tinkers," interposed the colonel with a sneer.

"But they have formed an alliance with the Topovers, the scallawags of Genverres. No matter about that. I see that friendly relations between the schools are impossible, and we can only agree to disagree. I shall be sorry to seek my remedy in the courts. Therefore I hope you will control your boys."

"I expected some allowance would be made for

the irregularities of young gentlemen, all of whom come from the best families in the States," said Colonel Buckmill, rising to take his leave. "I was mistaken, and I will do the best I can to prevent any further collision."

"That is all I can possibly ask; and if you do that, I shall hope that friendly relations — not socially, but on the lake as boatmen — may yet be established between our students, though some of mine may have the oil of the turning-lathe upon their skirts."

Colonel Buckmill departed no better satisfied than when he came. As a matter of fact, he had little expectation of being able to control his young gentlemen while they were on their excursions upon the lake. He was not a disciplinarian, and he had little skill in managing boys. The interview between the two principals hardly promised anything hopeful or peaceful in the future.

During the week the Sylph towed up to Beech Hill several rafts of lumber, and a week after the arrival of the caisson Mr. Brookbine was ready to begin the framing of the boat-house.

CHAPTER XXVIII.

SOMETHING ABOUT FRAMING THE BOAT-HOUSE.

WHILE the work of framing the boat-house was in progress, the lessons in the shops were suspended, but the forenoon exercises of the school were continued as usual. The new tools had arrived and had been distributed. The place chosen for framing the building was a level piece of ground between the shops and the dormitory.

On this spot the timber had been landed and piled up by laborers. Instead of assembling in the shop after dinner, the students were required to be on this ground with their boxes of tools. Mr. Brookbine was the central figure of the picture on this occasion, and, as usual, the boys were full of enthusiasm, for they were to make a beginning on a new piece of work. They gathered around the master carpenter, each standing by his box.

"The difficulty in our way, boys, is that you insist upon going too fast," Mr. Brookbine began. "Captain Gildrock wants it understood that our

business now is not so much to frame a building as to learn how to frame one. I am willing to answer questions, but I want you to stick to the text, and not talk about things a thousand miles from it.

"This boat-house is to be ninety-six feet long and thirty-two feet wide, not including the lean-tos for the dressing-rooms and small docks. We will divide the length into six parts, and the width into two parts. This will make twelve squares of sixteen feet each, or two hundred and fifty-six square feet. Every corner of these twelve squares must be supported by a foundation."

"That will make forty-eight posts, and only thirteen have been ordered," said Life Windham. "I don't see how thirteen posts can support forty-eight corners."

"Perhaps if you had waited before you said anything, you would have seen. Each of the inside posts, in the middle of the platform between the docks, will support four corners. One post may support one, two, or four corners. Of course no posts are required for those parts which are over the shore. We shall simply put blocks or short pieces of timber under them, and lay stone wall under the sills."

"But what are the sills?" asked Tom Ridley.

"I will explain the details as soon as you get the general idea of the frame," replied the instructor. "As I have said, the space to be enclosed by the frame is divided into six sections of the whole length. Each of these sections contains two of the squares I have described. Now, Ludlow, give me the size of the ground of each section."

"Thirty-two by sixteen," replied the student indicated.

"Right; and the boat-house will be the same as six buildings of thirty-two by sixteen, though all but two of the sides would be common to two of them. What I shall call a section of the frame includes all the timbers in one end of the building. I say one end. Never mind the length of the building. How many of these sections of the frame will there be, Bellows?"

"Six, of course," replied the student; and about half the boys laughed outright.

"Wrong," added Mr. Brookbine, joining in the laugh. "We have had this subject up before in the shop, and I am sorry you have forgotten about it. If you set up six stakes in the ground, how many spaces are there between them, Bellows?"

"Six, I should say;" and the boys all laughed again.

"Set them up and count them," continued the master carpenter, rather impatiently.

Ned Bellows did so, and could count only five spaces. He was required to add another stick, and this gave him the six spaces, as in the building.

"How many stakes have you, Bellows?"

"Seven," replied the student, rather sheepishly. "I see that there will be seven sections of the frame."

"Making no allowance for the docks, these seven sections are just alike, and contain precisely the same timbers," continued Mr. Brookbine. "This frame will be put together in sections, and each will be raised by itself, by the aid of rigging and machinery."

The boys began to ask questions, for some of them did not understand the sections yet. The instructor sent for a blackboard, which he placed on an easel; and with this he made the subject plain to all. There were seven tiers of timbers to be set up, when framed and put together, just like seven bricks, each placed on one end.

"Now we will drop the sections for a time, and

take them up again when we are ready for them," the instructor proceeded, as he rubbed the drawings from the blackboard. He then drew an outline of Chowder Point and the shore near it. "Now I will mark where the twenty-one points of support of the building are to be placed;" and he put this number of small crosses on the board. "Some of these bearings are posts and some are blocks, as they are in the water or on the shore.

"The timbers which rest on these foundation-points are the sills. These are the first we frame. They are twelve inches square. We cannot find any in our pile ninety-six feet long, and we shall have to scarf or splice them." While he spoke, he drew the positions of the sills on the foundations.

"But the boats can't go through that timber to get into the docks," interposed Nat Long.

"Let us attend to the general plan of the frame, and we will alter it for the docks before we are done," replied the instructor, as he proceeded to draw the five cross-timbers connecting the sills. "Now the sills are laid down. Between the cross, or section sills, we put in the floor joist. How far apart are the sections, Gawner?"

"Sixteen feet."

"These floor timbers are simply two-inch planks, nine inches wide. There is a pile of them," said Mr. Brookbine, pointing to the lumber. "They are to be placed sixteen inches apart, the sills being notched, or mortised, to receive the ends. These joists must be bridged."

"Bridged?" queried Ben Ludlow.

"This must be done before the floor is laid, for we can't get at the joist afterwards. Short pieces of board are nailed from the upper side of one timber to the lower side of the next one, the ends being sawed at the right bevel. Another piece is nailed in close to it, at right angles with the first. A pair of bridge-sticks must be put in every five feet. They are used to prevent the narrow timber from canting, thus giving a firm and solid floor.

"The next thing is to lay the floor; that is, we nail down boards over all the timbers. This will make the lower floor. Now, I may say that the framing for the end of the building where the docks are must be adapted to their shape. The floor-timbers of the lean-tos for the dressing-rooms will be supported by braces above and below from the posts.

"Now, we will suppose that the entire floor, except the docks, is laid, and we have a platform

ninety-six by forty to stand upon. Before the sills were put in place, they will be mortised to receive the tenons at the ends of the posts, and of the braces. Now we are ready to return to the sections of the frame.

"To each section there are three posts, — one at each side, and one in the centre of the building. On the upper ends of these posts rest the plates;" and the instructor drew the parts as he described them. "They connect the posts at the top, as the sills do at the bottom. About on a level with the hall-floor are timbers, called girders, joining the middle post with the outside ones. The sills, the plates, and the girders are the principal timbers, and are the same in all the sections.

"In every corner there is a diagonal brace, forming a right-angled triangle with a base and a perpendicular of three feet. We shall mortise for these braces, though of late years many carpenters simply spike them in their places. Between the sills and the girders, and between the girders and the plates, are the studs. They are made of four-by-two stuff, or, in other words, of two-inch plank, four inches wide. The sills, girders, and plates are mortised for them, and a two-inch tenon cut at the end of each stick.

Where windows come, short studs are put in above and below them. They are placed sixteen inches apart. This completes the frame below the roof."

"Then we are ready to go to work," said one of the boys.

"Not yet, for you don't expect the sections to stand alone. The frame of the first section will be put together with the bottoms of the posts at the mortises they are to occupy. It will be no easy job to get it up to a perpendicular; but it can be done with pike-poles and a derrick, with no little rigging. When we get it upright, the tenons will drop into the mortises, and we have to stay it in position with braces and ropes. Then we raise the second section in the same manner. There are plates and girders on the sides as well as the ends of the building. While the two sections are held in position, the girders and plates are put up to connect them. The studs and braces are put in place, as in the end section.

"All the large timbers are pinned together. You will have a nice time in making a cord or two of these pins. They are about an inch in diameter, made a little large for the hole, so as to fit it snugly. We pin the braces so that they will hold

both ways, but the studs are not fastened at all, for the tenons cannot get out of the mortises."

"We can turn the pins," suggested Lick Milton.

"You can; but while you are fitting the wood into the lathe I can cut out two of them with a broad axe. Your eye must be educated to the size. As we add each section to the building, we fill in the space between this one and the next. Now we have the frame up all but the roof.

"All structures are not framed alike, and some of the connections I have mentioned have to be omitted in some places. For example, the braces between the cross-girders and the posts can be used only in the ends of the building. Again, all the middle posts, except the two at the ends, must be short ones, for we don't want them in the middle of the hall.

"The framing of the roof is a simple matter, though we shall have to support the ceiling of the hall from it. To do this we use a little larger timber than would otherwise be required for the rafters, as they form a sort of truss, from which we hang the upper floor. I have finished what I had to say; but the details will have to be explained as we go along."

"You can't do anything with some of these timbers," said Bob Swanton, as he pointed to one near him. "It is twisted all out of shape."

"That one is warped in the sun; but a stick must be very crooked before we throw it out," replied Mr. Brookbine. "We must take the 'wind' out of it. All we want is two faces at right angles with each other. We select the two best sides, and with a couple of squares sight along each. Then we must hew it down where it is out."

The students were then required to take the square and compasses from the box. The actual work of framing was to begin.

CHAPTER XXIX.

THE STUDENTS USE THE SQUARE AND COMPASSES.

MR. BROOKBINE stood on one of the timbers intended for the sills of the boat-house. In his hand he held a steel square and a pair of compasses.

"The pair of compasses I hold in my hand," he said, "are of the simplest construction. Those you have in the shop are fitted with a screw-stop so that you can fasten them in any required position. You will complain that it is hard to move the legs of these, but as they must stay in place without any screw, it is necessary that the joint be a tight fit."

"Legs?" said a student.

"You can call them shanks, if you prefer, or arms. There are a great many technical names to parts of apparatus which are not often used because they are not generally known," replied the instructor. "Since I came to Beech Hill I learned that an oar consists of the handle, the loom and the blade. Outside of the navy probably not one

in ten ever heard of the loom of an oar, or would know what it meant. In carpentry the technical names used in one part of the country are not known in other parts. Legs is the proper technical name of the two parts of the compasses.

"You notice that the points are more blunt than those you use in the shop. In framing we use one of the legs as a marking-awl. The awl would do just as well, but it is sometimes convenient to have the compasses in your hand so that you can lay off a distance from the square with them. The points are tapered more rapidly so that they will make a mark which can readily be seen by the workman.

"The steel square is one of the most important tools used by the carpenter, and I could use up hours in telling you about it. The parts have technical names, though few make a strict use of them. The corner is called the heel, from which each of the four measures on it start. The long arm is the blade and the short one the tongue. The blade is just two feet long, or twenty-four inches."

"Mine is only twenty-three," suggested one of the boys, all of whom were examining their steel squares.

"Mine is only twenty-two in one place, and twenty-three in another," added another.

"You are altogether too literal, and the letter killeth in carpentry as well as in Scripture," replied Mr. Brookbine. "You must apply common sense to the figures. Now look at the outside measure on the blade: find the figure for one inch. That one means one inch in length, without regard to breadth, as you define a line in geometry. Hold up the square with the tongue down. Now does the inch of length lie on the right or the left of the point marked one."

"On the right," replied a dozen.

"Now look at the point marked twenty-three: is the inch marked with this number on the right or the left of it?"

"On the right."

"But there is another inch on the left of the mark, which is the twenty-fourth inch, though there is no room to mark it uniformly with the other numbers. Now, boys, look the thing over a little before you raise an objection. I repeat that, on the outside, the blade is two feet long. The student who said his blade was marked twenty-two in one place was wrong in his fact, and if he looks again he will see that the inside

length of the blade is twenty-two and a half inches, which is the outside width less the width of the tongue.

"In these squares the tongue is sixteen inches long, on the outside, and fourteen on the inside, marked in the same manner as the blade. The inside length is two inches less than the outside, for the blade is two inches wide, while the tongue is only an inch and a half. You must know the square so that you can use it without stopping to study out its meaning.

"The tongue is sixteen inches long in this instance because it furnishes a convenient measure for the placing of studs and furrings. The rule is to put studs and furrings sixteen inches apart; but there is no law which compels any carpenter or architect to follow it. Floor-joists are usually placed at the same distance apart, though the rule is often varied to meet the circumstances."

"I don't know what a furring is," said one of the boys.

"Furring a house is nailing strips of board, usually sawed at the mill three inches wide, to the posts and studs for the sides, and the floor-joist for the ceiling, on a room, at a distance of sixteen inches apart, on which the laths are

nailed for the plastering. If they were placed at any other distance from each other, it would make great confusion and waste in lathing. Laths are sawed four feet in length, so as to cover the space from the middle of one furring to the middle of the third one from it. Each lath is nailed to four furrings."

"But every room can not be exactly divided into spaces of sixteen inches in its length or breadth," suggested Harry Franklin.

"Very true; but the sixteen-inch division is used as far as it will go, and the lather must cut his laths for the last one. All the confusion comes in at the end then. If any other division were made he would have to cut every lath he used."

"But I have seen furrings only two inches wide," Lew Shoreham objected.

"No matter whether they are one or six inches wide: the rule is followed. But sixteen inches means from the centre of one furring to the centre of the next one; and the difference in the width comes into the space between them. In some places they lath upon the studs, inside, and clapboard upon them on the outside, without boarding.

"There is no particular reason why the blade

of the square should be two feet long, except that it is a convenient length. The width of both the blade and the tongue is important. In mortising the sill for the studs, we shall cut out a square hole of an inch and a half, which is the width of the tongue. We will begin with the timber on which I am standing, which is a foot square. The posts will be eight inches square. Baxter, measure four inches from the end.

"This point will be the centre of the mortise for the post," continued the master carpenter when the students had marked the distance. "Now lay off sixteen inches, and stick the point of the compasses well into the wood so that we can see the mark. This is the centre of the mortise for the first stud. The stuff for the studding is four inches by two. Set the points of your compass one inch apart, and keep them so for the present. Lay off one inch on each side of the point you have made in the sill."

Baxter did as he was told, and the rest of the students watched him.

"The space between the outside points is two inches, just the thickness of the stud," continued Mr. Brookbine. "Put one point of the compasses in either outside hole you have made; rest the

tongue of the square against the leg; let the blade hang over the side of the timber just far enough to enable you to square across the upper face of the timber; scratch a line across with the point of the compasses; in other words, scribe it. Do the same with the other outside point. Now you have the length of the mortise marked on the timber.

"Place the tongue of the square against the outer face of the sill, its length just even with the corner, and be accurate about it. Good! Now scribe against the inside of the tongue. Move the square until the outside of the tongue coincides with the line just made, and scribe as before. The result is that you have ruled off the width of the tongue, an inch and a half, at the same distance from the corner of the stick. This gives you the other two sides of the mortise. You must measure, mark, and scribe accurately, or our studs will not come in the right place.

"Now we will take a piece of studding, and finish the subject. The mortise will be an inch and a half deep, and we are to mark off a tenon to fit it. Set the square at the width of the tongue from the end of the stick, scribe all around it. The thickness of the stud fits the mortise, so that

we have to cut away none of it. Place the tongue against the face of the stud and scribe it. Do the same on the other side. Place the tongue against the mark made and scribe again. You may scribe in the same manner across the end of the stud. The result is that the tenon of an inch and a half by two inches is marked off at the distance of an inch and a half from the face of the stick. You can see that nothing but the saws are required to do the work."

"We can do all that fast enough," said Ben Ludlow.

"The trouble is that you will do it too fast, and be careless about it," replied the instructor. "It requires sound judgment to do this work well. As I have told you before, one may waste his wages ten times over in cutting up lumber. Before you put the saw into a stick, you should consider what the piece you cut off is good for. Most of the timber is selected for the frame, so as to make the least waste. I shall have a great deal to say to you on this subject as we go along. No matter how much money you have, or who pays the bills, there must be no unnecessary waste. That he cuts stock to good advantage, is one of the best recommendations for a mechanic."

"Don't we have to fit the tenons to the mortises, and number them, or something of that sort?" asked Luke Bennington.

"Some carpenters frame in that way, which answers very well in a small building," replied the instructor. "We shall use in the boat-house between four and five hundred studs, for example, and it would be more work to number and find them than it would be to frame the whole of them. We shall frame by what is sometimes called the square rule. Any long stud will fit any place where a long stud is required. The jack-studs, or short ones, are of different lengths, and we classify them by their size. Of course the short posts cannot be used in the sides or ends, or the side posts at the corners; but all the sticks of the same class are interchangeable."

The master carpenter ended his lecture. The timbers for the sills had been laid out for framing, and under the direction of the instructor, the students proceeded to mark them off for mortising. It would require a whole series of books to follow him in all the details. In what manner he gave his instruction has been shown. Four students were instructed how to mark for the posts, and they proceeded to do it.

Four more were told how to mark for the tenons at the ends of the posts, and as soon as they were fairly at them, four more were selected to prepare the girders. A squad was put upon the braces, another on the plates and a third on the studs. In a short time they were all at work. Mr. Brookbine looked over the marks as fast as his time would admit. Of course there were many mistakes, and these were pointed out.

After an hour's use of the square and compasses, the boys needed a change of work, and the instructor called for the framing-chisels and mallets. All hands were set to mortising where the marks had been made and proved to be correct. The students worked hard, and when night came they did not feel much like skylarking.

The next forenoon, while the pupils were at their studies, the master carpenter went over the marks and measurements on the timbers. He was surprised to find so few errors. Before noon he had arranged everything for the afternoon. The boys worked hard, and the framing was not likely to last long.

CHAPTER XXX.

THE STUDENTS CELEBRATE THE COMPLETION OF THE BUILDING OF THE HOUSE.

THE framing was finished, and the stone posts or the foundation in the water were ready. Captain Gildrock had decided to have a submarine diver to make a sure thing of the chinking up at the bottom. It was thought best to make two cargoes of the foundations, especially as it was necessary to carry a considerable quantity of other stone.

Seven of the posts had been loaded upon the caisson, and the Sylph went up to tow it down. The derrick had been erected in the centre of it, and everything was ready to drop the foundations into their places. With the handling of the stone the students had nothing to do; but they manned the steamer, and moved the caisson as required. The experience obtained in towing the caisson from Burlington had fitted the boys for their work, and the tow was soon brought into position for setting the first post.

The two four-oar boats and the quarter-boats of the steamer were manned, and were useful in carrying out the various guys and stays in mooring the caisson. The posts were lowered into the water over one end of the craft, the boom of the derrick being thirty feet long, so that the equilibrium of the float could be better secured.

The Goldwing was appropriated to the use of the sub-marine diver and his assistants. He was the novelty of the occasion, for not one of the students, with the exception of the two from New York city, had ever seen the working of the apparatus. It was hardly a full exhibition, however, for the water was not over the diver's head in any part of the bay where he was to make a descent.

The man dressed himself and put on his copper helmet in the standing-room of the yacht; and the students gave him three cheers when he was in full rig. The air-pump was placed on the forward deck, and the hose through which the air was to be supplied to the diver was conveniently arranged. A tub of stone chips of various size was ready to be lowered down to him.

"I don't see how they are to sling the post so as to drop it down into the water plumb," said

Oscar Chester, in the pilot-house of the Sylph, which was alongside the caisson.

"The quarrymen have drilled a hole in the top of each; the inside of which is in the shape of the frustrum of a pyramid on two sides," replied Dory Dornwood. "They have an iron made in the same shape, but considerably smaller, which they drop into the hole. On the two slanting sides they insert pieces of iron of uniform thickness, which just fill up the hole. When these are in place you cannot pull out the middle iron, to which the hoisting apparatus is attached."

Oscar watched the process of making fast to the first post, and a sight of the apparatus enabled him to comprehend its working. There were four sheaves in the blocks used on the derrick; and the process of hoisting and lowering, when the rope was wound up on a small cylinder, like that on the machine, was very slow. But great power is obtained only at the expense of speed. Bolly Millweed had been up to see the loading of the posts on the caisson, and with two men at the winches it took hours to put a single one on board.

On his return he had a talk with Mr. Jepson, and the result of it was that a cylinder was rigged

in the shop which could be worked with the engine. The distance of the derrick from the cylinder made it necessary to use a very strong rope, which Captain Gildrock selected for the purpose. A gong bell was rigged in the shop, to be rung with a cord.

There was something for every student to do, and the work of each one had been assigned to him. There were eight on the steamer, eight in the boats, two on the Goldwing, four on the caisson, one of whom was to put his whole mind upon the ringing of the gong bell, while Bolly Millweed, who was regarded as the architect and engineer of the work, had three assistants.

Bolly was a great man on this occasion, and his father and mother stood on Chowder Point, observing him with admiration. Doubtless Bolly "felt his oats," but anyone who had been with Captain Gildrock a while did not put on airs, and the architect conducted himself with becoming modesty. He was really entitled to a great deal of credit, for not only the plans, but many of the contrivances for setting the posts and raising the building had been originated by him.

Mr. Brookbine had insisted that it was next to impossible to set the foundations properly in the

water. Bolly thought there was no great difficulty in doing this part of the work. He addressed himself to the problem, and asked the master carpenter to select for him two straight eight-inch timbers, thirty-two feet long. These were pinned together in the form of a steel square, though with arms of equal length. Braces were put on to keep the timbers exactly at right angles with each other.

At the heel and the ends of this floating square he set up three poles, straight and plumb, which were painted red. In the apparatus of the school there was a surveyor's compass, with sights upon it. With this instrument, used on the shore, he got the square in position, so that the heel was where the first post was to be set. His three assistants were in a boat, and moved the square by the signals he made. It was then moored to the bottom, so that it could not be readily moved.

The floating square was placed so that the outer corner would just touch the inner corner of the post when it was set. At this point the architect nailed a couple of laths so as to form two sides of a square of the size of the foundation stones. In the middle and at each end of the arms of the square, he also nailed laths, to mark the position

of four other posts, one of which formed the second corner of the end of the building.

Mr. Brookbine commended the engineer, though he had some doubts about the floating square. The swinging of the caisson, or a slight rap from the stone in lowering it, would knock the square out of place. Bolly could only reply that the caisson must not swing, and the post must not touch the square.

At the order of the principal quarryman, Jim Alburgh rang the gong, the long rope straightened, and the end of the post began to rise. The square was three feet from one end of the caisson, which was moored at the other end from the west side of the bay. Bolly was in one of the boats with two of his assistants, the third being stationed on shore with the compass, sighting along the red poles, to give notice of any change in the position of the square.

When it was raised high enough, the post was lowered slowly into the water, a foot from the guides on the square. Bolly was nervous, and kept telling the quarrymen not to let the stone touch the guides or the square. The diver dropped into the water, and waded to the stone. When the end of it was nearly on the bottom, the

post was swung into place so carefully that the marks were not disturbed. The diver chinked up the stone, and it was accurately plumbed.

When the first post was in place, the students gave three cheers. The Sylph whistled lustily, and just at that moment the two Chesterfield barges darted into Beech Hill Lake. They went over to the grove, where they picked up a dozen of the Topovers. It did not look as though the principal of the institute had much influence over them; for taking the Topovers into their boats indicated that they were bent upon mischief.

Captain Gildrock said nothing about the barges and their occupants, and did not seem to notice them. The work proceeded as though they had been on the other side of the lake. The Sylph moved the caisson into position for laying the second post, which was on the side, to avoid changing the mooring-ropes as much as possible.

The Chesterfields rowed up to a point where they could see what was going on, and watched the work for a while. It was no "circus" for them, and they soon pulled to the shore on the west side of Hornet Bay. Dory watched them from the pilot-house, and soon had occasion to report to the principal that the Chesterfields and

Topovers had hold of the mooring-rope of the caisson. He had not finished what he was saying before the stone boat suddenly moved towards the site of the building, and then knocked Bolly's square out of place.

Captain Gildrock took command this time himself. The chief quarryman was a constable. He asked all the rest of the men and boys to act as his posse, and all hands were ordered into the steamer. The mischief-makers had taken the mooring-rope into the Dasher, and had headed out into the lake. The steamer darted after them. The boats let go the rope, and attempted to escape by the way they had come. The Sylph was too much for them, and both boats were captured. The principal directed the constable to take the two coxswains and Tom Topover out of them, and they were shut up in the ice-house on board of the steamer.

The others were permitted to depart, which they were glad to do when they found that Captain Gildrock "meant business." The prisoners were kept till noon in the ice-house, when they were taken before a magistrate, and a complaint made for trespass and for stealing the boats on a former occasion. They were sent to the lock-up, but

Colonel Buckmill came over before night and bailed out Commodore Twinker and Jeff Monroe.

At the trial a case was made out, and all the defendants were subjected to a fine, which Tom's father would not pay, and he was kept in jail for two weeks. Colonel Buckmill paid those of his students. He had warned them before of the peril of meddling with the Beech Hill students, and probably he did it again on this occasion. What good it did we may learn from another book of this series. At any rate the Chesterfields and the Topovers did not go to Beech Hill Lake again that year.

Bolly arranged the square again, and the rest of the posts were set. The sills were then loaded on the caisson, from which they were laid on the posts. The rest of the lower timbers were put in place by the students, with the help of the laborers only. The rafts of boards, which had been secured to the shore until they were wanted, were towed to the frame, and the racket of six-and-twenty hammers resounded through the grove for the next two afternoons. The boys learned to drive nails, but there was not so much fun in it, they found, when they came to make a business of it. The sawing and fitting of the boards for

the floor gave some variety, and they were required to sharpen their judgment in the prevention of waste.

While the students were at their studies, the laborers carried the timbers of the frame to the platform, and the next job was to put them together in sections. The caisson was securely moored off the east end of the site by ropes leading to the shore. The boom of the derrick was "topped up" until it was perpendicular to the deck of the craft. Slings were rigged at the intersection of the three end posts with the plates, from which three lines came together at the foot of the middle post.

"Now, boys, we want three sailors," said Captain Gildrock, who attended personally to the rigging. "What they have to do may be considered dangerous in the country, though not more so than going upon the cross-trees of a ship, and I shall call for volunteers."

Every student raised his hand, for all of them wanted the difficult positions. The principal selected three who had had some experience in going aloft; and they were Dory Dornwood, Matt Randolph and Luke Bennington.

"You will take your places at the top ends of

the posts, and be hoisted up with them. Hold on to the slings, and don't get your hands jammed in them," continued the principal. "I shall want three more to go up on the next section, and Glovering, Short, and Chester will be ready for this duty. None of you will come down till the entire frame is raised."

The fall from the derrick had been brought over in a boat, and hooked on to the loops from the slings. The order to ring was given, for the power was supplied by the engine in the shops, as before, and the section began to rise. Mr. Miker, the lessee of the quarry, and his men, had volunteered to assist at the raising. The grounds contained a great many people who had come as spectators, and there were more volunteers to take part than could be employed.

Mr. Brookbine stood at one corner post, and Mr. Miker at the other, with a stone-cutter at the middle one, all armed with iron bars. The principal difficulty in raising the sections was in preventing the foot of the post from moving from its place. A sling had been rigged three feet from the tenon on each post, kept from slipping by a pin through the hole in the brace mortise, to which a twofold purchase, made fast at the other

end to the sill, was attached. The purchase-tackle was hauled taut, and a student was to slack it with a double turn around a timber, as the post ascended. The iron bars were to be used in guiding the tenon into the mortise.

Everything worked precisely as had been intended; for Captain Gildrock took no chances and incurred no risks. The machinery and the ropes were strong, and all sorts of possible accidents had been provided for. The students on the top of the moving section waved their caps when they were well up in the air, and those below cheered them; but the principal would not allow any boys' play which might distract the attention of the workers.

"Now man the check lines," called the principal, when the section approached a perpendicular position.

These were ropes passing through a single block, leading down in the rear from the plates. Without these the section might have fallen over upon the derrick when it reached an upright position. The check lines were hauled taut, and paid out as the derrick rope brought it to its permanent place. The tenons were successfully directed into the mortises, and the men with the iron

bars were relieved from the duty of using them. Each of them had a spirit level, which was also a plumb. As the section approached its proper position, the men applied the plumb.

"Ring!" shouted the master carpenter; and the student on the caisson pulled his rope. The section was not yet finally plumbed, but was secured by ropes and board stays. The sailors on the plates cast off the slings and the check lines, which were immediately attached to the second section; and this one was raised in the same manner as the first had been.

By the check lines the students on the frame hauled up five single blocks, which were made fast at the head of the long posts. A single whip was rigged at each, and with these the side plates and the girders were hoisted to the places where they were required. The sailors inserted the tenons in the mortises, as the timbers were elevated in a horizontal position, and drove in the pins.

A great many contrivances unknown to carpenters were used, by the aid of which many of the boys became men; but the reading about them will not be half so exciting as was the actual use of them. When the timbers had all been put in

place, including the studs in the sides, but not the floor joists, the two sections were plumbed.

The rest of the raising was done in the same manner. At noon all the volunteers dined with the students, and a grand dinner was given in honor of the occasion. Before night the raising was finished.

A great collation was served on the lawn at sundown, and the Genverres band played all the evening. The grounds were thronged with people, and an impromptu dance, in which most of the students took part, closed the festivities of the day.

The rest of the Building of the House was a matter of detail, and the work was done in shop time. By the first of November the boat-house was shingled and clapboarded, the windows were put in, and a few temporary doors were hung. During the winter the students got out the finish, and the building was entirely completed on the first day of June of the following year.

The wharf had been finished according to Bolly Millweed's plan by the middle of May. The parts of the truss bridge had been made in the shop in the winter. The sides of the caisson were built up of the timbers which had remained inside of it from the beginning. The architect fixed its

position with the compass from the shore. The Sylph towed rafts of refuse stone to the enlarged caisson, and it was sunk into position. A plank floor was laid on the top of it, and Bolly's dream became a reality.

Of course such an event as the completion of the great boat-house and the wharf could not be passed by without a suitable celebration. This included a magnificent collation, music on the lawn, and a big social dance in the hall. Many people from Burlington attended it, and even Lew Shoreham was willing to admit that the uniform of the Beech Hill Industrial School was a big thing, inasmuch as no young lady would look at a young man on that day who did not wear it. In fact it had come to be regarded as an honorable distinction, and the students were proud to wear it.

The Building of the House by the students had given the school no little reputation, and the "Tinkers" were lions in many places where they went. Captain Gildrock had applications enough to quadruple the number of his pupils, and he was considering the question of enlarging the sphere of its usefulness from the beginning of the next year.

Among those present at the celebration of the completion of the boat-house were Mr. Plint the

architect, and the fat civil engineer, Mr. Bridges. The former was so pleased with Bolly's work and his ideas, that he offered him a place in his office at Albany, with a salary of fifty dollars a month, as a draughtsman. Bolly did not want to leave the school, but his father's circumstances made it his duty to accept the offer.

The civil engineer wanted a young man, and Lew Shoreham found a place with him, for he had to earn his own living. Corny Minkfield and John Brattle had places offered to them to run stationary engines in a marble quarry; but as they were still young, the principal advised them to remain another year at the school. A dozen of the students could have obtained fair wages as carpenters, but they were counselled to continue their studies.

The thoughts of the boys at Beech Hill had a nautical tendency, and Captain Gildrock was now ready to carry out his second great idea, which was to build a sailing craft somewhat larger than the Goldwing; and the next volume will explain how, in the midst of many adventures with the Chesterfields and the Topovers, the students did all the work, from "Stem to Stern," in the practical work of "Building the Boat."

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